# A Meta Grammar Codex

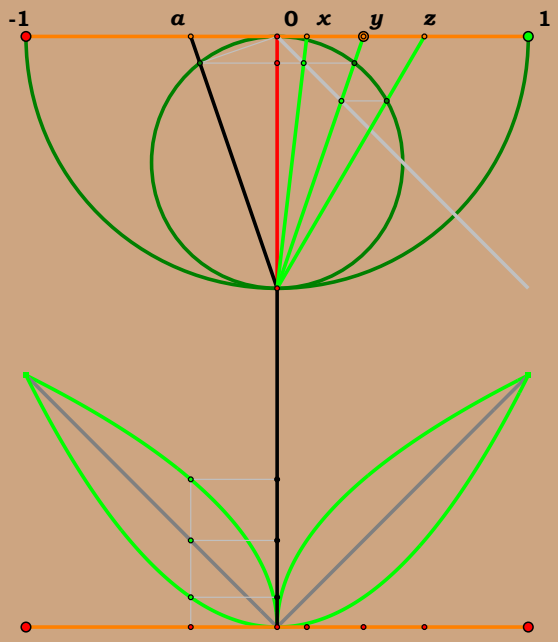

## John Clark


## 2026

### 2nd Edition

## Logical Operator

**The Flower of Life**




$a = -0.34391$
$x = 0.11827$
$y = 0.34391$
$z = 0.58644$

$\frac{a}{\sqrt{x}} = -1.00000$

$\frac{a}{y} = -1.00000$

$\frac{a}{z^2} = -1.00000$

$\frac{\frac{a}{\sqrt{x}} + 1}{2} = 0.00000$ $\quad \frac{a + \sqrt{x}}{2 \cdot \sqrt{x}} = 0.00000$

$\frac{1 - \frac{a}{\sqrt{x}}}{2} = 1.00000$ $\quad \frac{\sqrt{x} - a}{2 \cdot \sqrt{x}} = 1.00000$

$\frac{\frac{a}{y} + 1}{2} = 0.00000$ $\quad \frac{a + y}{2 \cdot y} = 0.00000$

$\frac{1 - \frac{a}{y}}{2} = 1.00000$ $\quad \frac{y - a}{2 \cdot y} = 1.00000$

$\frac{\frac{a}{z^2} + 1}{2} = 0.00000$ $\quad \frac{a + z^2}{2 \cdot z^2} = 0.00000$

$\frac{1 - \frac{a}{z^2}}{2} = 1.00000$ $\quad \frac{z^2 - a}{2 \cdot z^2} = 1.00000$

**Correlatives**

$\frac{a}{y} = -1.00000$ **Left, right; Up, down; Cold, hot; Male, female; Good, evil, etc.**

$\frac{a + y}{2 \cdot y} = 0.00000$ **Assertion, denial, Yes, no, Noun, verb; etc.**

# The Meta-Grammar Codex Introduction

This work demonstrates that one can use our Grammar Matrix of Common Grammar, Arithmetic, Algebra and Geometry as described by Plato in *Philebus* around 2,500 years ago in geometry to produce what he called Philosopher's Geometry, but which I call *Formal Geometry* as opposed to *Classical Geometry*. Plato, in his dialogs, was promoting the use of Geometry in order to pair it with Common Grammar, and according to his own usage, he never implied that Geometry, was hobbled by the use of two perceptible tools, when in fact, he repeatedly stated that all of Grammar was ruled by binary recursion, which he called *Dialectic*, **speech in accordance with the two intelligible parts which defined every-thing**, not perceptible parts, but the intelligible parts. We sure do not define any system of grammar in accordance with a pair of perceptible tools, especially when grammar is intelligible. I say that those who insist on doing this, are simply illiterate. What this means is that every one who insisted that one could only produce geometry with straightedge and compass, blatantly contradicted Plato's own foundation of *Formal Grammar*.

One might try reproducing the operations one finds in this codex which brings to fruition Plato's express desire to produce a *Philosophical Geometry*, based not on the perceptible, but on the intelligible, i.e., a wholly Metaphorical Geometry applicable to everything. As he stated, Geometry can produce perceptible paradigms, metaphors, of all possible reasoning. And, this one fact is even intimated in an older work, The Judeo-Christian Scripture, from which some have historically pursued Sacred Geometry after the manner of children.

Plato actually predated the evolution of Grammar and Technology to example Formal Geometry beyond the very primitive ideas involved.

Today, there is even the bud of this change in biology in regard to how the brain processes information. Those biologists, however, have not yet seen their idea of processing using structures demonstrated in Formal Geometry.

By biological definition our function is to process information in order to maintain and promote life over the entire biosphere. All information processing as proclaimed by Plato, Science, even the Bible, is accomplished by binary recursion, i.e., repeating the two elements of a thing, nouns and verbs, correlatives and relatives, limits and the difference between limits.

## How to formulize a grammar.

As Plato noted, we start with naming conventions by which we name the two elements of a thing, this involves symbol sets such as the Alphabet, Numbers, their combinations in Algebra, In Geometry, we do not invent a symbol set, we pair these two elements with the behavior of the hand.

After we can define some things, we can compare them and produce two types of identity, Algebraic identity for nouns, and Geometric identities for the relative differences.

For arithmetic identities in grammar, we compare two things for equality or inequality, i.e., 0 and 1, If they are unequal, one is less than the other and the other is greater than the less. this is -1, 1, So, we have very few primitive logical operators even though every geometric identity can be parsed into all its component identities to form truth tables against tracked arithmetic identities, less than, equal to, greater than.

So, we have two logs to perform in the processing of information and the codex in this little book may help with that. As both Plato and Aristotle warned, and as defined as a thing, no system of grammar can function without the proper use of both concurrently.

$a = 1.77530$

$b = 2.65614$

$c = 0.56328$

$d = 0.37649$

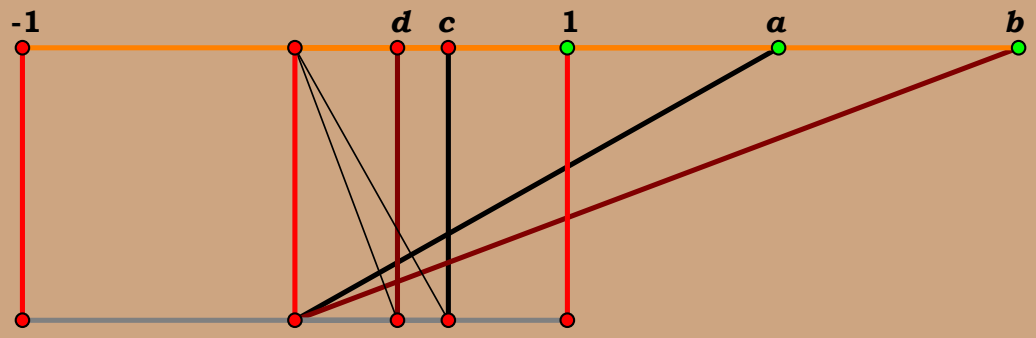
$c - \frac{1}{a} = 0.00000$

$d - \frac{1}{b} = 0.00000$

$a - \frac{1}{c} = 0.00000$

$a \cdot c = 1.00000$

$b \cdot d = 1.00000$




# The Reciprocal

**Infinity equals 0.**

**So much for those who claim that they can add, subtract, multiply, and divide 0 and pull a rabbit out of their hat, or a wonder out of their tush.**

**False Statements.**

$\frac{a}{0} = \infty$ $\frac{a}{0} - 0 = \infty$ $\frac{0}{0} =$ undefined

**Not performing any operation produces no product or difference, each commensurate with either an arithmetic or geometric identity.**

$0 \cdot a = 0.00000$ $0 + a = 1.77530$

**Induction is the reciprocal of deduction, the arithmetic identity is the reciprocal of the geometric identity.**

**In place a or b anywhere one likes, does the commensurate number magically become real or imaginary? Rational or irrational? finite or transfinite? Cartesian or Euclidean? or any other name you pull out of your tush? Or is a number an arithmetic name only?**

$a = 0.57836$

$b = 2.65614$

$c = 1.72903$

$d = 0.37649$

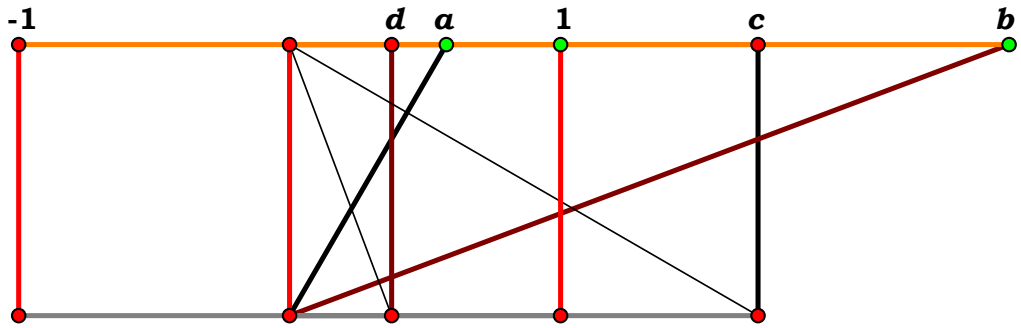
$c - \frac{1}{a} = 0.00000$

$d - \frac{1}{b} = 0.00000$

$a - \frac{1}{c} = 0.00000$

$a \cdot c = 1.00000$

$b \cdot d = 1.00000$




# The Reciprocal

**Infinity equals 0.**

**So much for those who claim that they can add, subtract, multiply, and divide 0 and pull a rabbit out of their hat, or a wonder out of their tush.**

**False Statements.**

$\frac{a}{0} = \infty$ $\frac{a}{0} - 0 = \infty$ $\frac{0}{0} =$ undefined

**Not performing any operation produces no product or difference, each commensurate with either an arithmetic or geometric identity.**

$0 \cdot a = 0.00000$ $0 + a = 0.57836$

**Induction is the reciprocal of deduction, the arithmetic identity is the reciprocal of the geometric identity.**

**In place a or b anywhere one likes, does the commensurate number magically become real or imaginary? Rational or irrational? finite or transfinite? Cartesian or Euclidean? or any other name you pull out of your tush? Or is a number an arithmetic name only?**

$a = -0.65579$

$b = 2.65614$

$c = -1.52487$

$d = 0.37649$

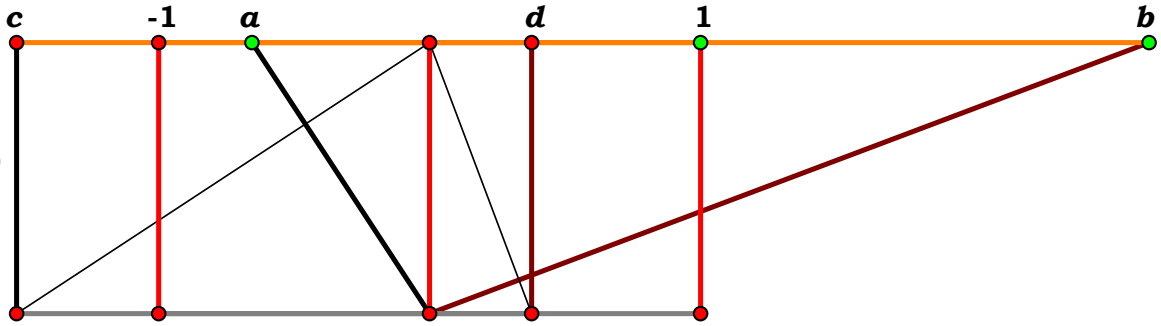
$c - \frac{1}{a} = 0.00000$

$d - \frac{1}{b} = 0.00000$

$a - \frac{1}{c} = 0.00000$

$a \cdot c = 1.00000$

$b \cdot d = 1.00000$




# The Reciprocal

**Infinity equals 0.**

**So much for those who claim that they can add, subtract, multiply, and divide 0 and pull a rabbit out of their hat, or a wonder out of their tush.**

**False Statements.**

$\frac{a}{0} = -\infty \quad \frac{a}{0} - 0 = -\infty \quad \frac{0}{0} = \text{undefined}$

**Not performing any operation produces no product or difference, each commensurate with either an arithmetic or geometric identity.**

$0 \cdot a = 0.00000 \qquad 0 + a = -0.65579$

**Induction is the reciprocal of deduction, the arithmetic identity is the reciprocal of the geometric identity.**

**In place a or b anywhere one likes, does the commensurate number magically become real or imaginary? Rational or irrational? finite or transfinite? Cartesian or Euclidean? or any other name you pull out of your tush? Or is a number an arithmetic name only?**

$a = -0.65579$

$b = 0.60336$

$c = -1.52487$

$d = 1.65740$

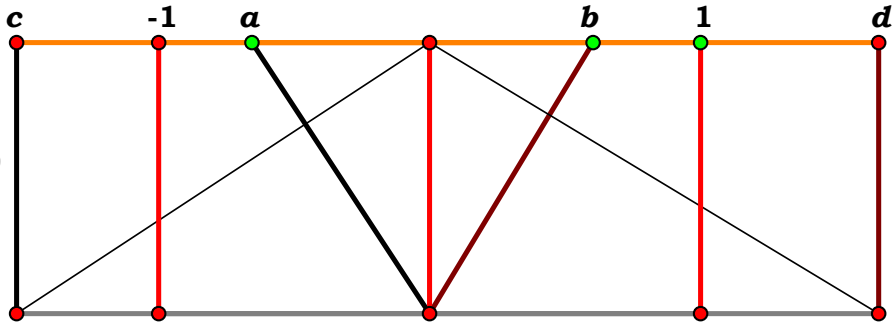
$c - \frac{1}{a} = 0.00000$

$d - \frac{1}{b} = 0.00000$

$a - \frac{1}{c} = 0.00000$

$a \cdot c = 1.00000$

$b \cdot d = 1.00000$




# The Reciprocal

**Infinity equals 0.**

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**False Statements.**

$\frac{a}{0} = -\infty$ $\frac{a}{0} - 0 = -\infty$ $\frac{0}{0} = \text{undefined}$

**Not performing any operation produces no product or difference, each commensurate with either an arithmetic or geometric identity.**

$0 \cdot a = 0.00000$ $0 + a = -0.65579$

**Induction is the reciprocal of deduction, the arithmetic identity is the reciprocal of the geometric identity.**

**In place a or b anywhere one likes, does the commensurate number magically become real or imaginary? Rational or irrational? finite or transfinite? Cartesian or Euclidean? or any other name you pull out of your tush? Or is a number an arithmetic name only?**

$a = -0.65579$

$b = -0.46955$

$c = -1.52487$

$d = -2.12969$

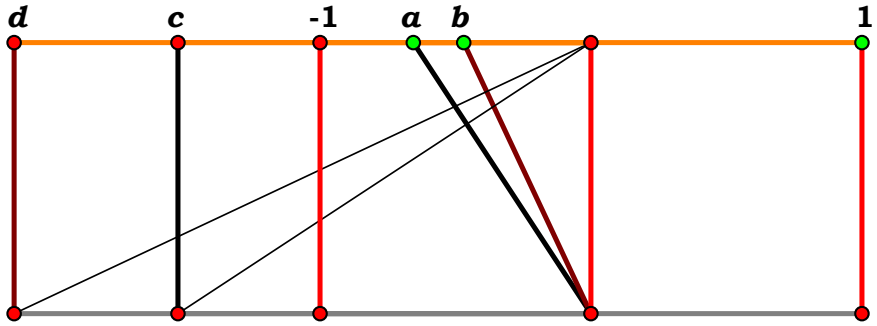
$c - \frac{1}{a} = 0.00000$

$d - \frac{1}{b} = 0.00000$

$a - \frac{1}{c} = 0.00000$

$a \cdot c = 1.00000$

$b \cdot d = 1.00000$




# The Reciprocal

**Infinity equals 0.**

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**False Statements.**

$\frac{a}{0} = -\infty$ $\frac{a}{0} - 0 = -\infty$ $\frac{0}{0} =$ undefined

**Not performing any operation produces no product or difference, each commensurate with either an arithmetic or geometric identity.**

$0 \cdot a = 0.00000$ $0 + a = -0.65579$

**Induction is the reciprocal of deduction, the arithmetic identity is the reciprocal of the geometric identity.**

**In place a or b anywhere one likes, does the commensurate number magically become real or imaginary? Rational or irrational? finite or transfinite? Cartesian or Euclidean? or any other name you pull out of your tush? Or is a number an arithmetic name only?**

$a = -0.65579$

$b = -1.28819$

$c = -1.52487$

$d = -0.77629$

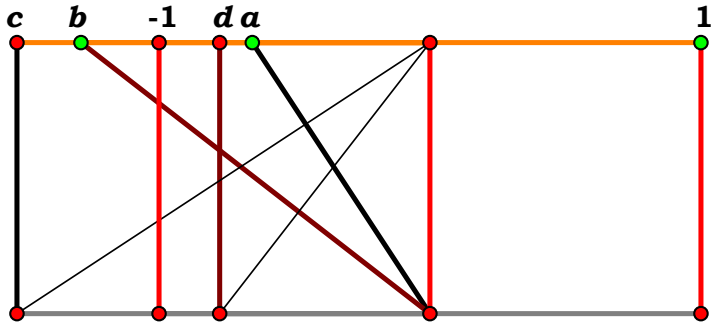
$c - \frac{1}{a} = 0.00000$

$d - \frac{1}{b} = 0.00000$

$a - \frac{1}{c} = 0.00000$

$a \cdot c = 1.00000$

$b \cdot d = 1.00000$

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**Not performing any operation produces no product or difference, each commensurate with either an arithmetic or geometric identity.**

$0 \cdot a = 0.00000$ $0 + a = -0.65579$

**Induction is the reciprocal of deduction, the arithmetic identity is the reciprocal of the geometric identity.**

**In place a or b anywhere one likes, does the commensurate number magically become real or imaginary? Rational or irrational? finite or transfinite? Cartesian or Euclidean? or any other name you pull out of your tush? Or is a number an arithmetic name only?**

$a = 1.46611$

$b = 2.08285$

$c = 0.68208$

$d = 0.48011$

$e = 3.54897$

$f = 0.28177$

$\frac{1}{a} = 0.68208$

$\frac{1}{b} = 0.48011$

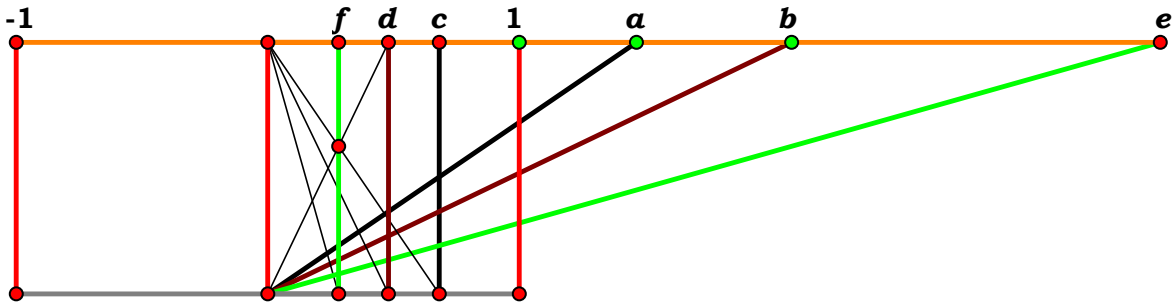
$\frac{1}{c} = 1.46611$

$\frac{1}{d} = 2.08285$

$e - (a + b) = 0.00000$

$e - \left(\frac{1}{c} + \frac{1}{d}\right) = 0.00000$

$f - \frac{1}{a + b} = 0.00000$




# Addition

$a = 1.46611$

$b = 0.33722$

$c = 0.68208$

$d = 2.96547$

$e = 1.80333$

$f = 0.55453$

$\frac{1}{a} = 0.68208$

$\frac{1}{b} = 2.96547$

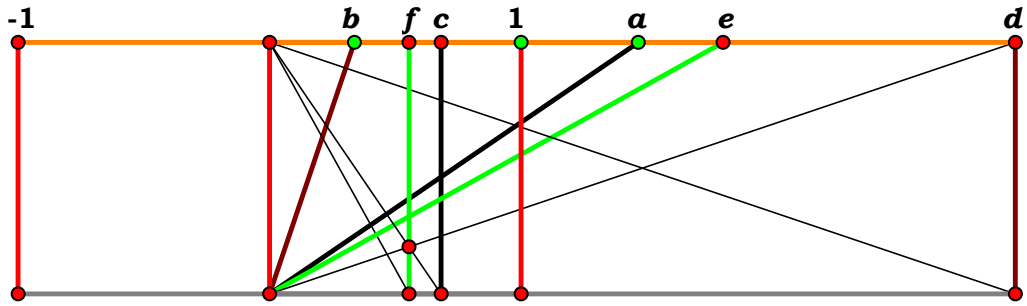
$\frac{1}{c} = 1.46611$

$\frac{1}{d} = 0.33722$

$e - (a + b) = 0.00000$

$e - \left(\frac{1}{c} + \frac{1}{d}\right) = 0.00000$

$f - \frac{1}{a + b} = 0.00000$




# Addition

$a = 1.46611$

$b = -0.71919$

$c = 0.68208$

$d = -1.39046$

$e = 0.74693$

$f = 1.33882$

$\frac{1}{a} = 0.68208$

$\frac{1}{b} = -1.39046$

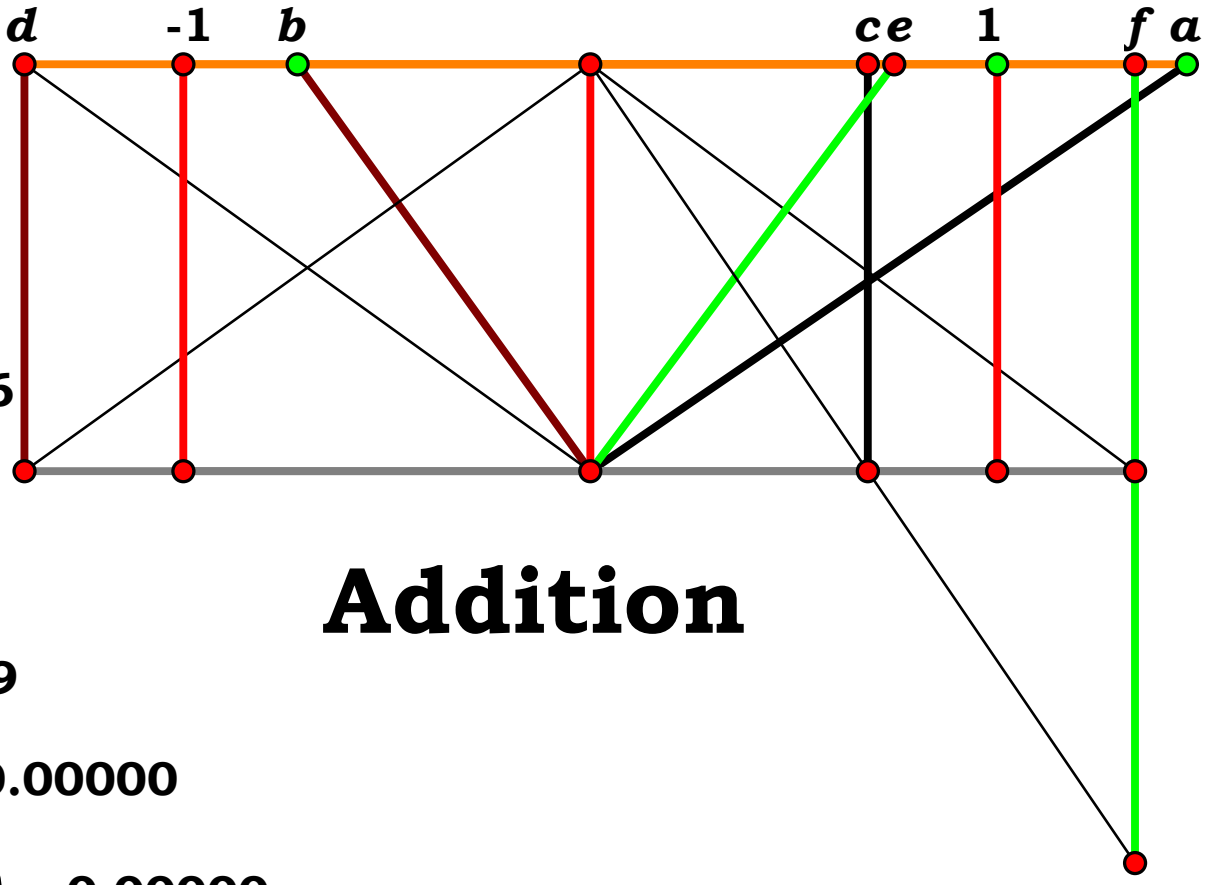
$\frac{1}{c} = 1.46611$

$\frac{1}{d} = -0.71919$

$e - (a + b) = 0.00000$

$e - \left(\frac{1}{c} + \frac{1}{d}\right) = 0.00000$

$f - \frac{1}{a + b} = 0.00000$




# Addition

$a = 0.24867$

$b = -0.71919$

$c = 4.02132$

$d = -1.39046$

$e = -0.47051$

$f = -2.12535$

$\frac{1}{a} = 4.02132$

$\frac{1}{b} = -1.39046$

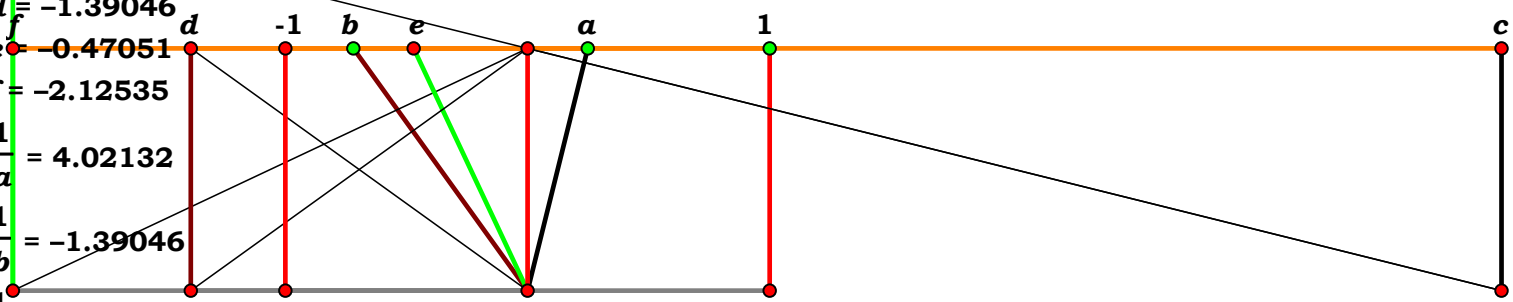
$\frac{1}{c} = 0.24867$

$\frac{1}{d} = -0.71919$

$e - (a + b) = 0.00000$

$e - \left(\frac{1}{c} + \frac{1}{d}\right) = 0.00000$

$f - \frac{1}{a + b} = 0.00000$




# Addition

$a = -1.34237$

$b = -0.50018$

$c = -0.74495$

$d = -1.99930$

$e = -1.84254$

$f = -0.54273$

$\frac{1}{a} = -0.74495$

$\frac{1}{b} = -1.99930$

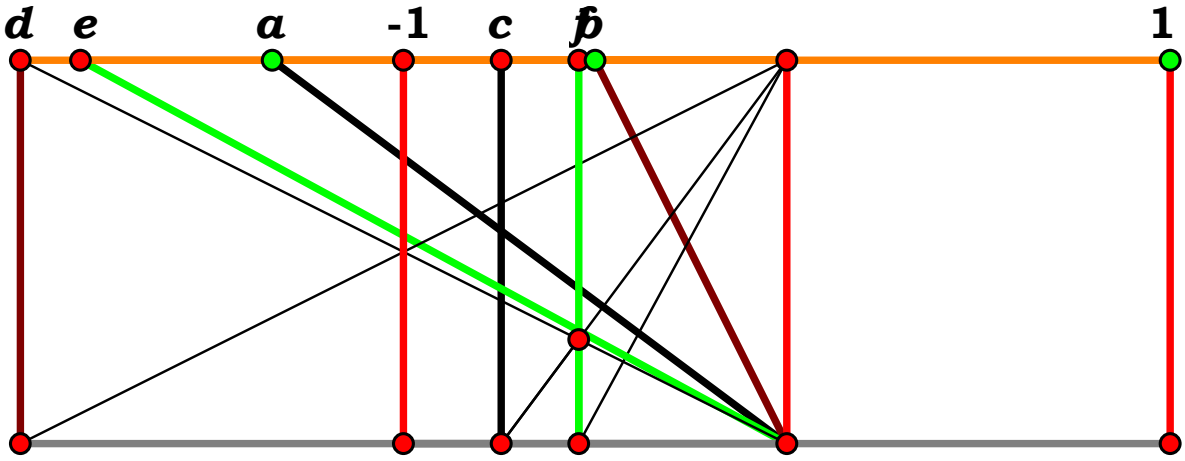
$\frac{1}{c} = -1.34237$

$\frac{1}{d} = -0.50018$

$e - (a + b) = 0.00000$

$e - \left(\frac{1}{c} + \frac{1}{d}\right) = 0.00000$

$f - \frac{1}{a + b} = 0.00000$




# Addition

$a = -1.32948$

$b = -1.59523$

$c = -0.75217$

$d = -0.62687$

$e = -2.92471$

$f = -0.34191$

$\frac{1}{a} = -0.75217$

$\frac{1}{b} = -0.62687$

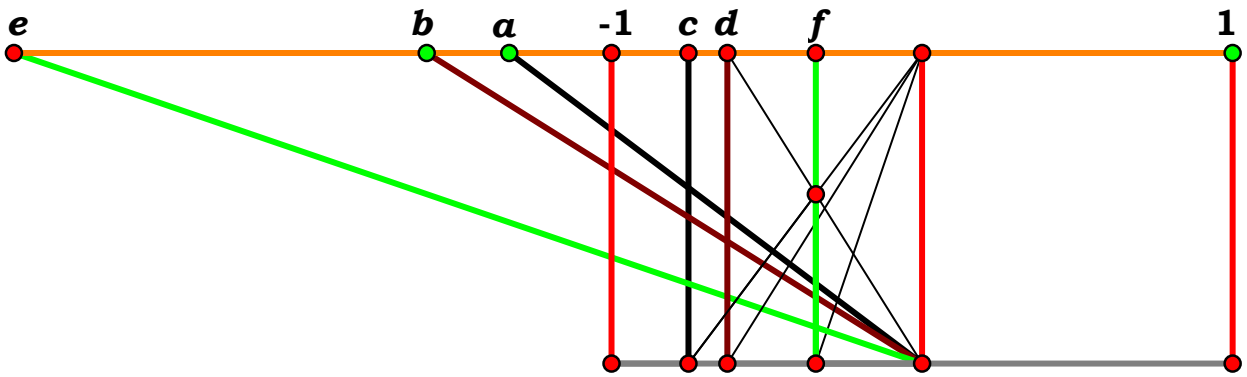
$\frac{1}{c} = -1.32948$

$\frac{1}{d} = -1.59523$

$e - (a + b) = 0.00000$

$e - \left(\frac{1}{c} + \frac{1}{d}\right) = 0.00000$

$f - \frac{1}{a + b} = 0.00000$




# Addition

$a = 1.67087$

$b = 2.40188$

$c = 0.59849$

$d = 0.41634$

$e = 0.69565$

$f = 1.43750$

$\frac{1}{a} = 0.59849$

$\frac{1}{b} = 0.41634$

$\frac{1}{c} = 1.67087$

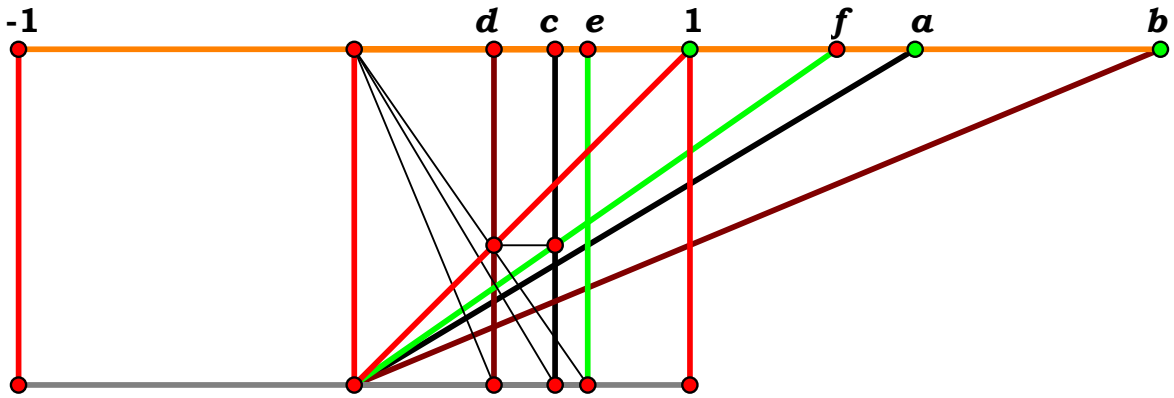
$\frac{1}{d} = 2.40188$

$e - \frac{a}{b} = 0.00000$

$f - \frac{b}{a} = 0.00000$

$f - \frac{c}{d} = 0.00000$

$e - \frac{d}{c} = 0.00000$




# Division

$a = 0.66661$

$b = 1.90539$

$c = 1.50013$

$d = 0.52483$

$e = 0.34985$

$f = 2.85833$

$\frac{1}{a} = 1.50013$

$\frac{1}{b} = 0.52483$

$\frac{1}{c} = 0.66661$

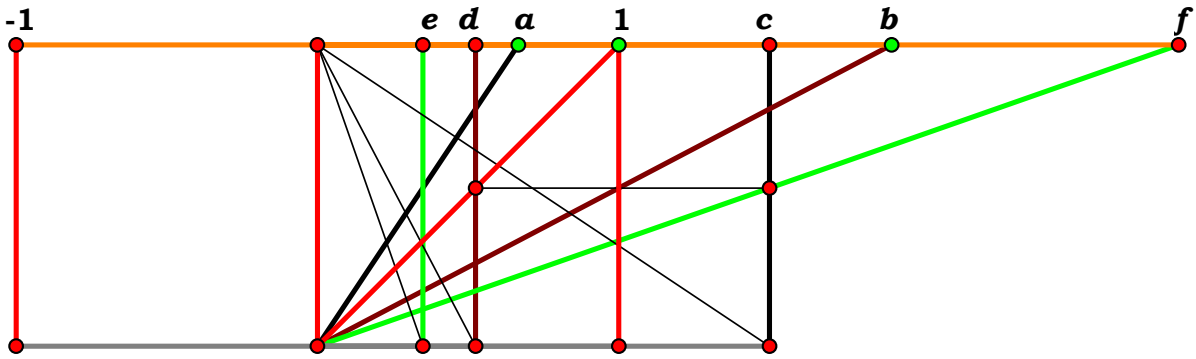
$\frac{1}{d} = 1.90539$

$e - \frac{a}{b} = 0.00000$

$f - \frac{b}{a} = 0.00000$

$f - \frac{c}{d} = 0.00000$

$e - \frac{d}{c} = 0.00000$




# Division

$a = -0.83415$

$b = 1.90539$

$c = -1.19883$

$d = 0.52483$

$e = -0.43778$

$f = -2.28424$

$\frac{1}{a} = -1.19883$

$\frac{1}{b} = 0.52483$

$\frac{1}{c} = -0.83415$

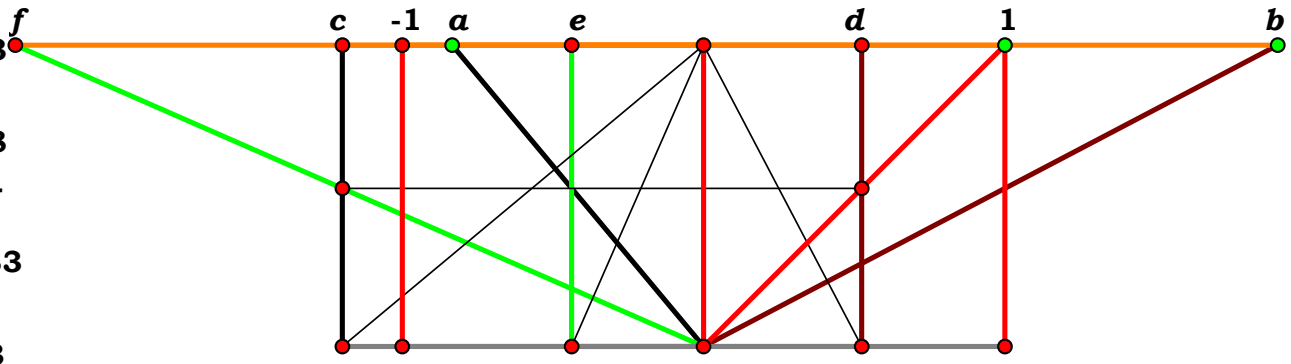
$\frac{1}{d} = 1.90539$

$e - \frac{a}{b} = 0.00000$

$f - \frac{b}{a} = 0.00000$

$f - \frac{c}{d} = 0.00000$

$e - \frac{d}{c} = 0.00000$




# Division

$a = -0.83415$

$b = 0.58518$

$c = -1.19883$

$d = 1.70889$

$e = -1.42546$

$f = -0.70153$

$\frac{1}{a} = -1.19883$

$\frac{1}{b} = 1.70889$

$\frac{1}{c} = -0.83415$

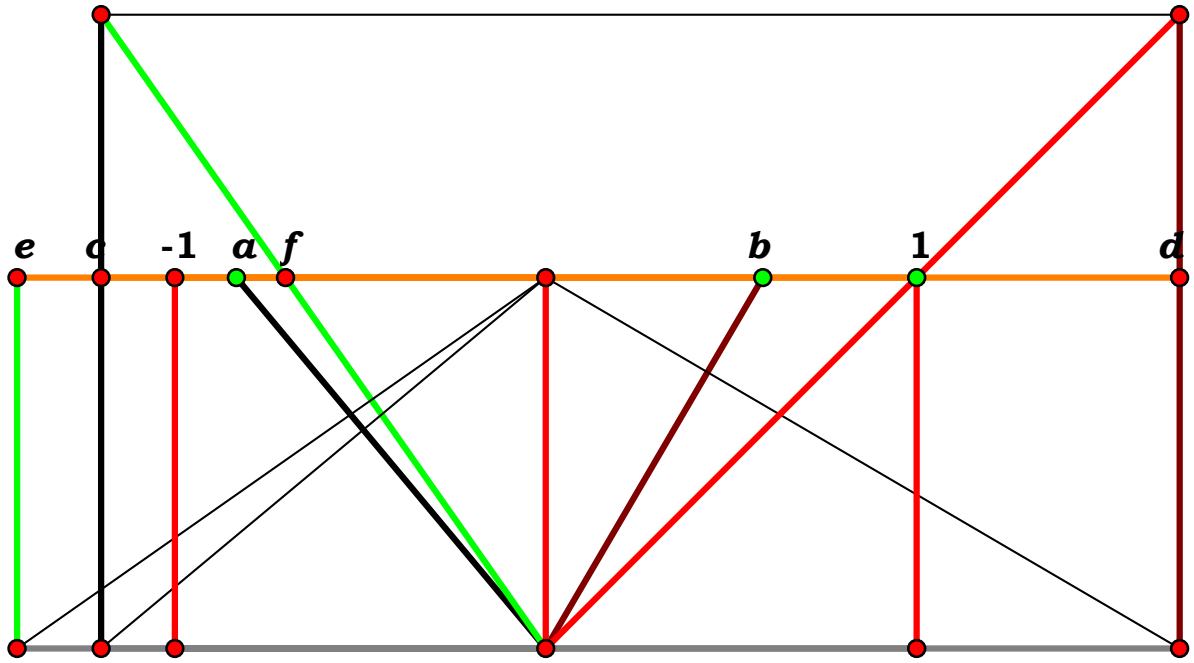
$\frac{1}{d} = 0.58518$

$e - \frac{a}{b} = 0.00000$

$f - \frac{b}{a} = 0.00000$

$f - \frac{c}{d} = 0.00000$

$e - \frac{d}{c} = 0.00000$




# Division

$a = -0.83415$

$b = -0.64477$

$c = -1.19883$

$d = -1.55095$

$e = 1.29372$

$f = 0.77296$

$\frac{1}{a} = -1.19883$

$\frac{1}{b} = -1.55095$

$\frac{1}{c} = -0.83415$

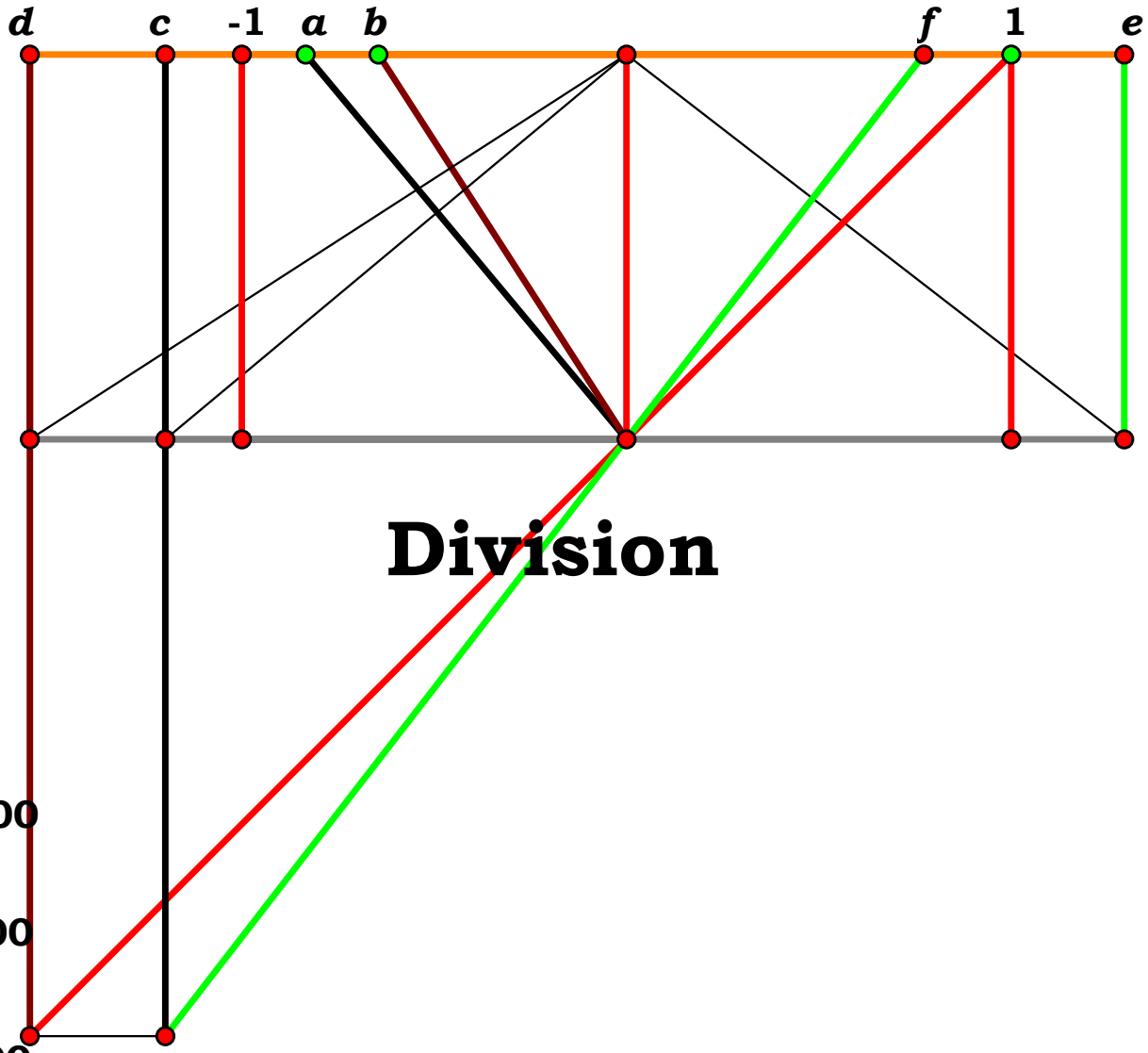
$\frac{1}{d} = -0.64477$

$e - \frac{a}{b} = 0.00000$

$f - \frac{b}{a} = 0.00000$

$f - \frac{c}{d} = 0.00000$

$e - \frac{d}{c} = 0.00000$




# Division

$a = -0.83415$

$b = -1.50798$

$c = -1.19883$

$d = -0.66314$

$e = 0.55315$

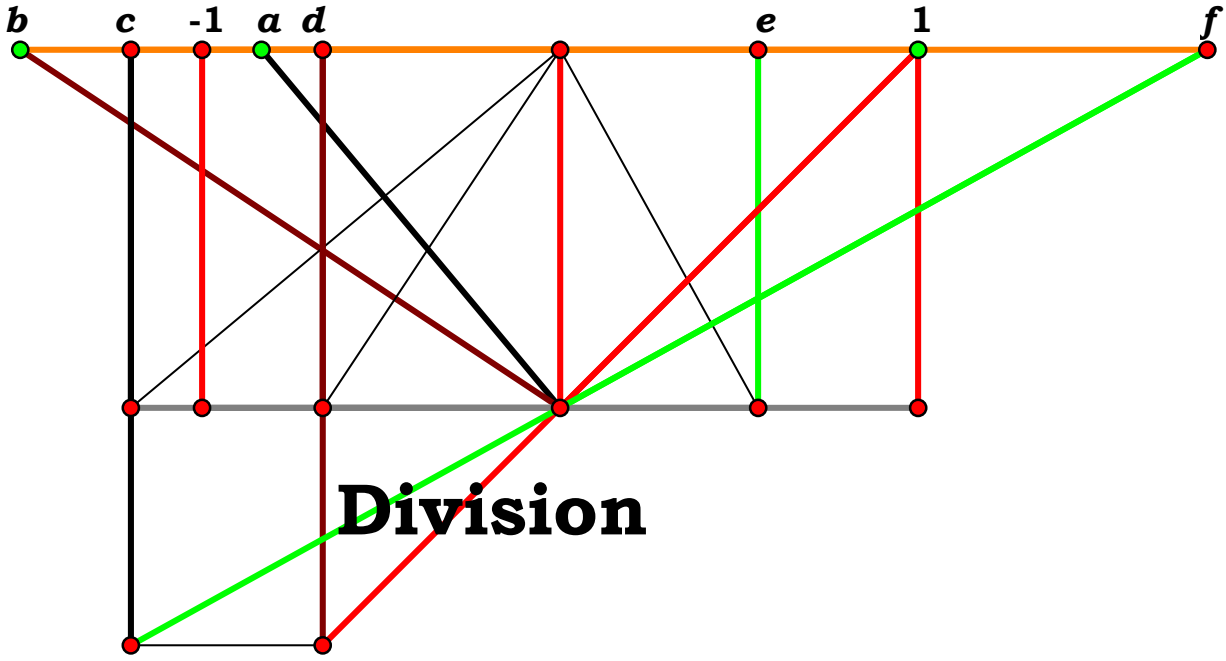
$f = 1.80781$

$\frac{1}{a} = -1.19883$

$\frac{1}{b} = -0.66314$

$\frac{1}{c} = -0.83415$

$\frac{1}{d} = -1.50798$




$e - \frac{a}{b} = 0.00000$

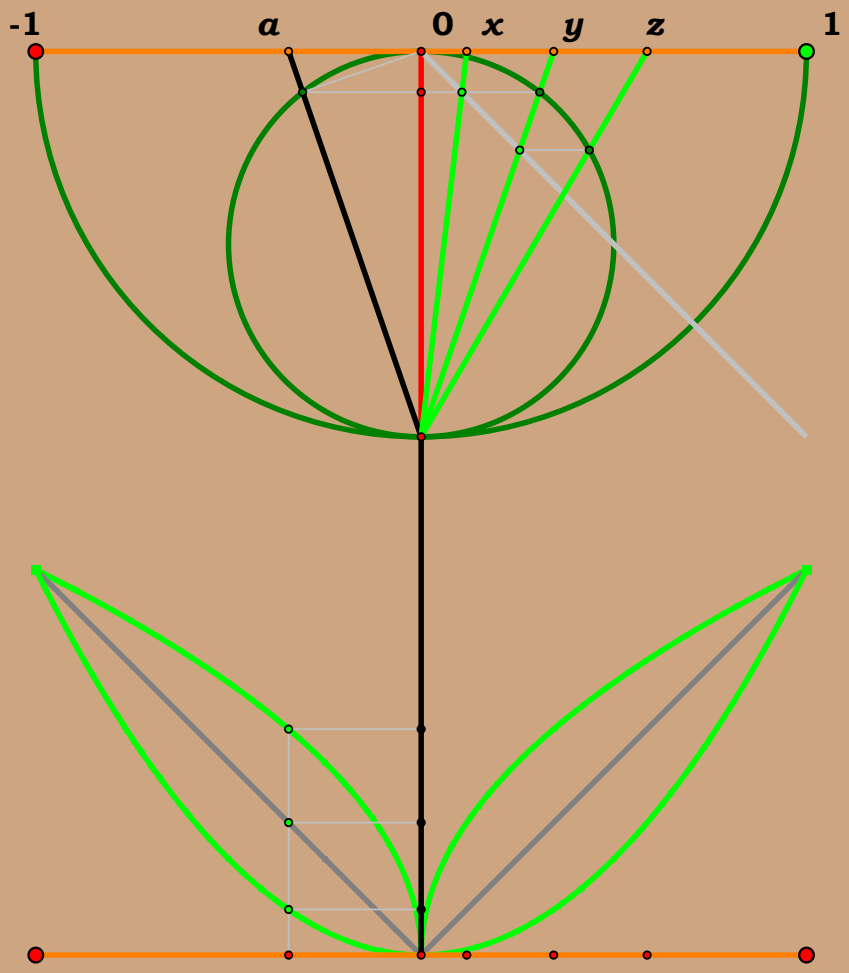
$f - \frac{b}{a} = 0.00000$

$f - \frac{c}{d} = 0.00000$

$e - \frac{d}{c} = 0.00000$

# Logical Operator

**The Flower of Life**




$a = -0.34391$

$x = 0.11827$

$y = 0.34391$

$z = 0.58644$

$\frac{a}{\sqrt{x}} = -1.00000$

$\frac{a}{y} = -1.00000$

$\frac{a}{z^2} = -1.00000$

$\frac{\frac{a}{\sqrt{x}} + 1}{2} = 0.00000$ $\quad \frac{a + \sqrt{x}}{2 \cdot \sqrt{x}} = 0.00000$

$\frac{1 - \frac{a}{\sqrt{x}}}{2} = 1.00000$ $\quad \frac{\sqrt{x} - a}{2 \cdot \sqrt{x}} = 1.00000$

$\frac{\frac{a}{y} + 1}{2} = 0.00000$ $\quad \frac{a + y}{2 \cdot y} = 0.00000$

$\frac{1 - \frac{a}{y}}{2} = 1.00000$ $\quad \frac{y - a}{2 \cdot y} = 1.00000$

$\frac{\frac{a}{z^2} + 1}{2} = 0.00000$ $\quad \frac{a + z^2}{2 \cdot z^2} = 0.00000$

$\frac{1 - \frac{a}{z^2}}{2} = 1.00000$ $\quad \frac{z^2 - a}{2 \cdot z^2} = 1.00000$

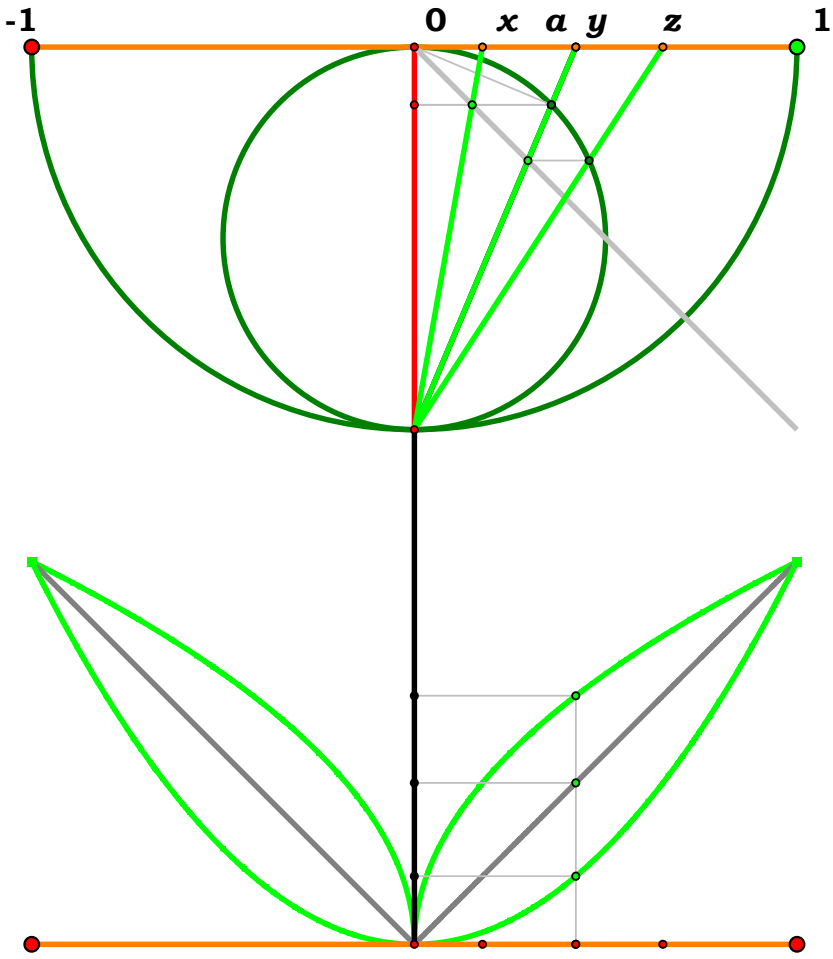
**Correlatives**

$\frac{a}{y} = -1.00000$ **Left, right; Up, down; Cold, hot; Male, female; Good, evil, etc.**

$\frac{a + y}{2 \cdot y} = 0.00000$ **Assertion, denial, Yes, no, Noun, verb; etc.**

# Logical Operator

**The Flower of Life**




$a = 0.42187$

$x = 0.17797$

$y = 0.42187$

$z = 0.64951$

$\frac{a}{\sqrt{x}} = 1.00000$

$\frac{a}{y} = 1.00000$

$\frac{a}{z^2} = 1.00000$

$\frac{\frac{a}{\sqrt{x}} + 1}{2} = 1.00000$ $\quad \frac{a + \sqrt{x}}{2 \cdot \sqrt{x}} = 1.00000$

$\frac{1 - \frac{a}{\sqrt{x}}}{2} = 0.00000$ $\quad \frac{\sqrt{x} - a}{2 \cdot \sqrt{x}} = 0.00000$

$\frac{\frac{a}{y} + 1}{2} = 1.00000$ $\quad \frac{a + y}{2 \cdot y} = 1.00000$

$\frac{1 - \frac{a}{y}}{2} = 0.00000$ $\quad \frac{y - a}{2 \cdot y} = 0.00000$

$\frac{\frac{a}{z^2} + 1}{2} = 1.00000$ $\quad \frac{a + z^2}{2 \cdot z^2} = 1.00000$

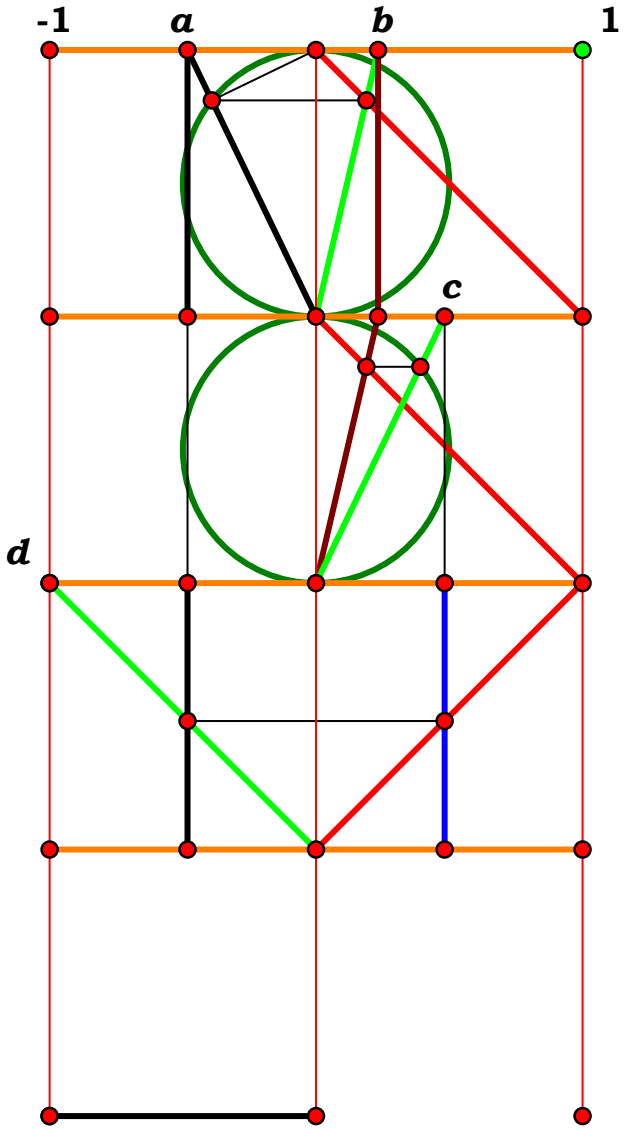
$\frac{1 - \frac{a}{z^2}}{2} = 0.00000$ $\quad \frac{z^2 - a}{2 \cdot z^2} = 0.00000$

**Correlatives**

$\frac{a}{y} = 1.00000$ **Left, right; Up, down; Cold, hot; Male, female; Good, evil, etc.**

$\frac{a + y}{2 \cdot y} = 1.00000$ **Assertion, denial, Yes, no, Noun, verb; etc.**

$a = -0.48230$




$a^2 - b = 0.00000$

$b = 0.23261$

$b^2 = 0.05411$

$c = 0.48230$

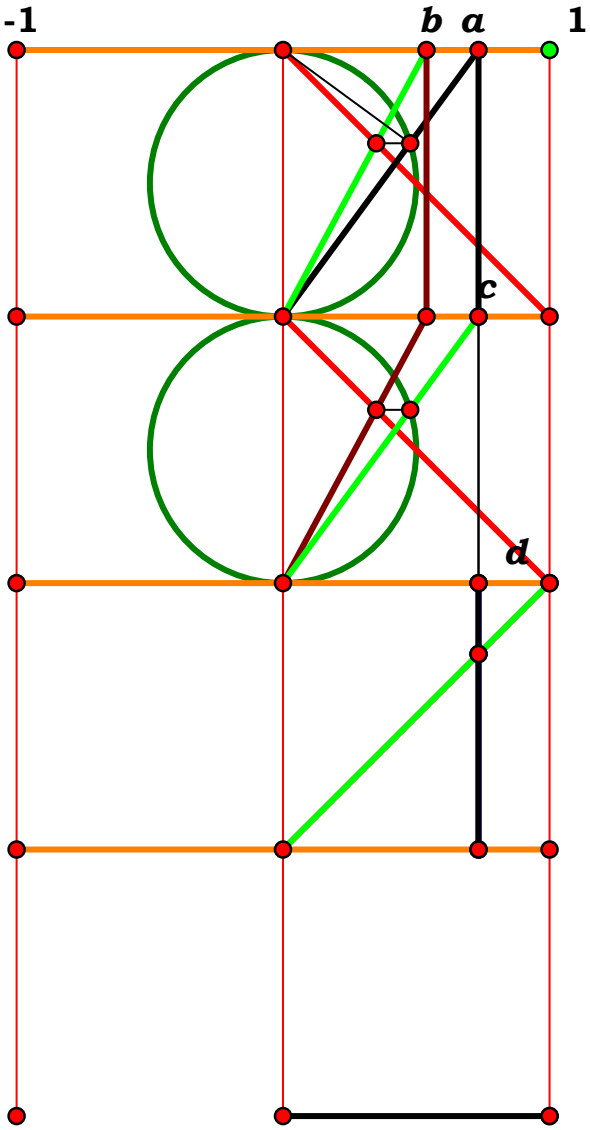
$c - \sqrt{b} = 0.00000$

$d = -1.00000$

$\frac{a}{c} = -1.00000$

$d - \frac{a}{c} = 0.00000$

$a = 0.73352$




$a^2 - b = 0.00000$

$b = 0.53805$

$b^2 = 0.28949$

$c = 0.73352$

$c - \sqrt{b} = 0.00000$

$d = 1.00000$

$\frac{a}{c} = 1.00000$

$d - \frac{a}{c} = 0.00000$

$a = 0.28702$

$b = 0.66899$

$c = 0.50270$

$d = -0.38197$

$e = 0.14590$

$f = 0.38197$

$$c - \frac{a \cdot b}{b - a} = 0.00000$$

$$\frac{1}{a} = 3.48404$$

$$\frac{1}{b} = 1.49479$$

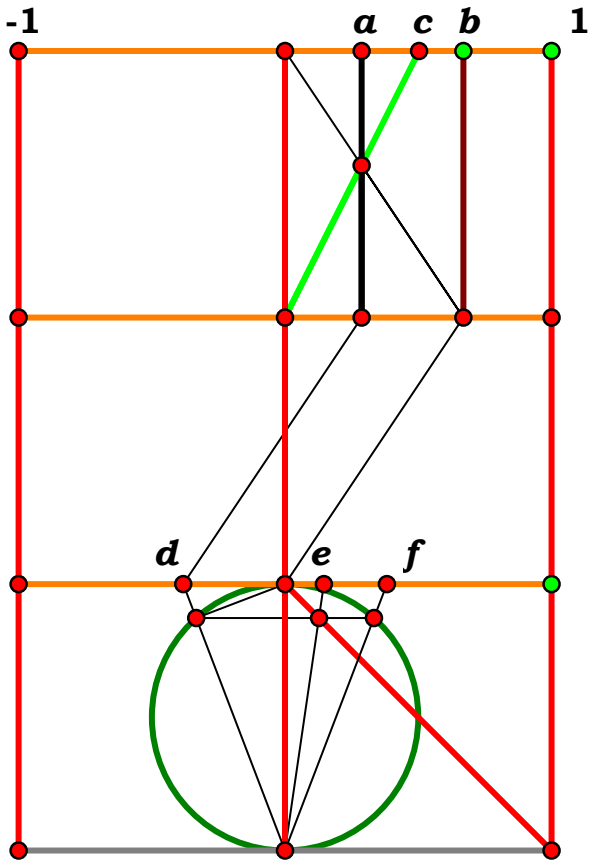
$$\frac{1}{c} = 1.98926$$

$$\frac{1}{c} - \left( \frac{1}{a} - \frac{1}{b} \right) = 0.00000$$

$$\frac{d + f}{2 \cdot d} = 0.00000$$

$$\frac{f - d}{2 \cdot f} = 1.00000$$

$$\frac{d}{f} = -1.00000$$



$a = 0.57972$

$b = 0.33126$

$c = -0.77294$

$d = 0.24845$

$e = 0.06173$

$f = 0.24845$

$$c - \frac{a \cdot b}{b - a} = 0.00000$$

$$\frac{1}{a} = 1.72497$$

$$\frac{1}{b} = 3.01873$$

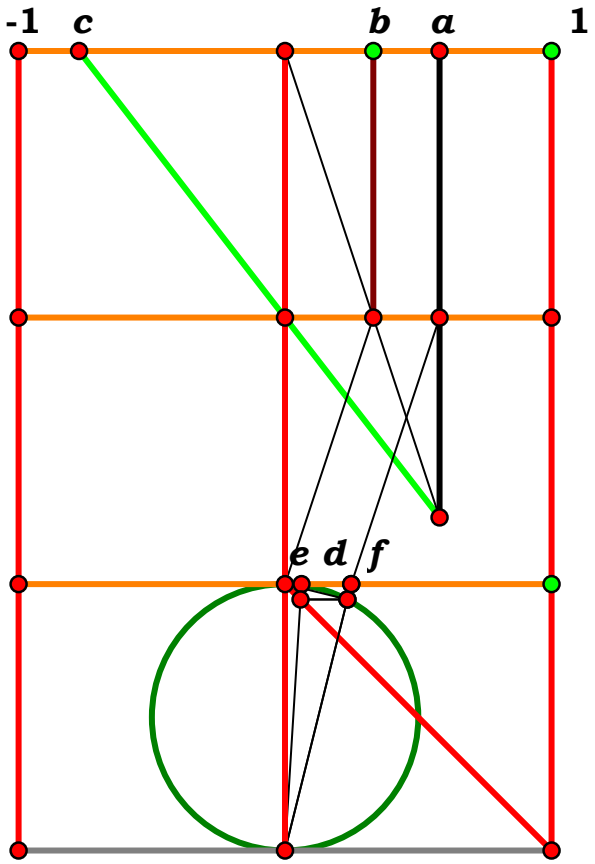
$$\frac{1}{c} = -1.29376$$

$$\frac{1}{c} - \left(\frac{1}{a} - \frac{1}{b}\right) = 0.00000$$

$$\frac{d + f}{2 \cdot d} = 1.00000$$

$$\frac{f - d}{2 \cdot f} = 0.00000$$

$$\frac{d}{f} = 1.00000$$



$a = -0.45597$

$b = 0.33126$

$c = -0.19187$

$d = -0.78724$

$e = 0.61975$

$f = 0.78724$

$$c - \frac{a \cdot b}{b - a} = 0.00000$$

$$\frac{1}{a} = -2.19311$$

$$\frac{1}{b} = 3.01873$$

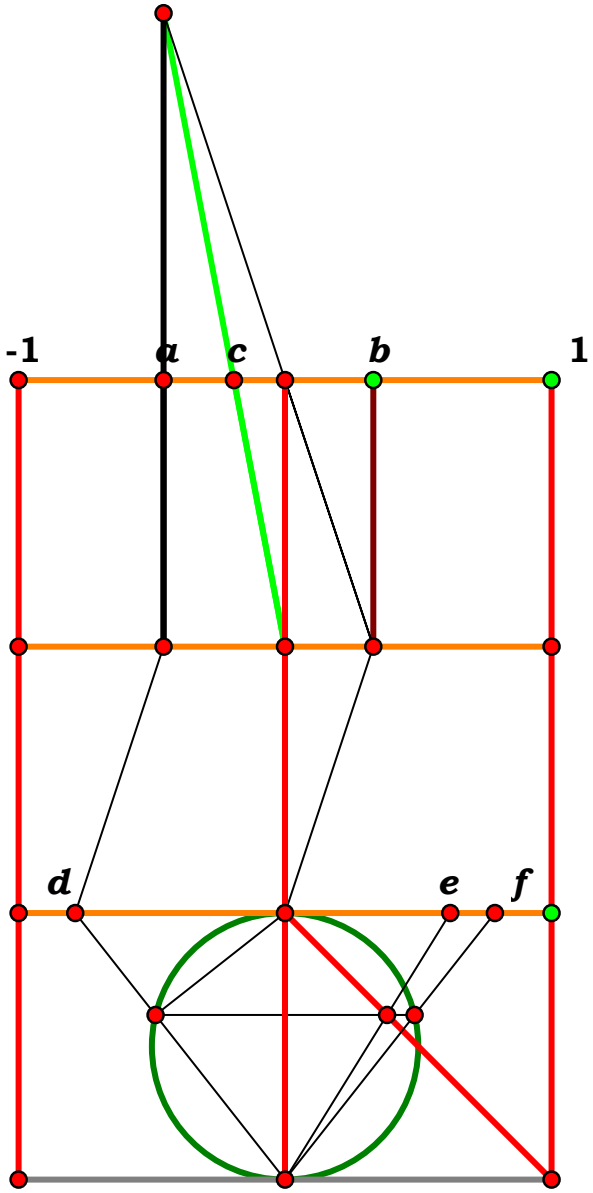
$$\frac{1}{c} = -5.21184$$

$$\frac{1}{c} - \left( \frac{1}{a} - \frac{1}{b} \right) = 0.00000$$

$$\frac{d + f}{2 \cdot d} = 0.00000$$

$$\frac{f - d}{2 \cdot f} = 1.00000$$

$$\frac{d}{f} = -1.00000$$



$a = -0.45597$

$b = -0.18658$

$c = 0.31581$

$d = -0.26939$

$e = 0.07257$

$f = 0.26939$

$$c - \frac{a \cdot b}{b - a} = 0.00000$$

$$\frac{1}{a} = -2.19311$$

$$\frac{1}{b} = -5.35959$$

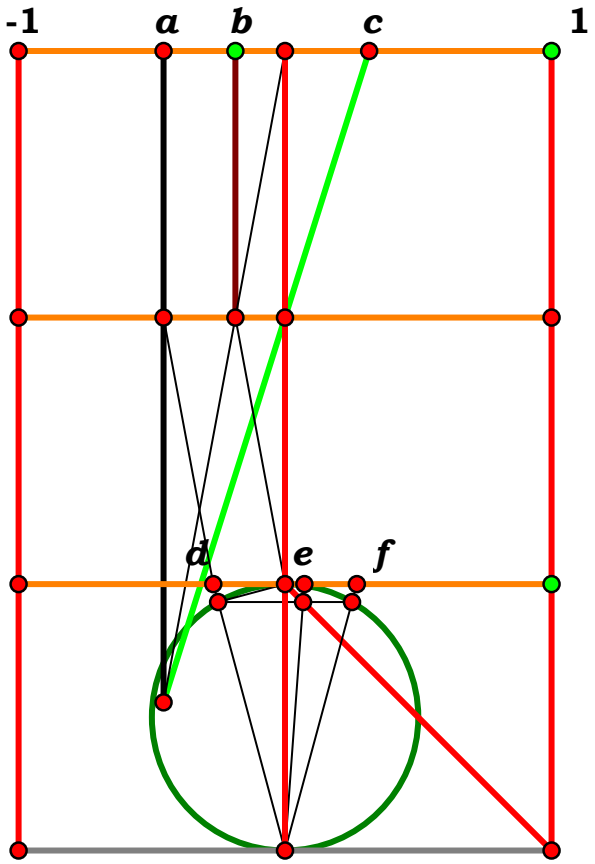
$$\frac{1}{c} = 3.16648$$

$$\frac{1}{c} - \left( \frac{1}{a} - \frac{1}{b} \right) = 0.00000$$

$$\frac{d + f}{2 \cdot d} = 0.00000$$

$$\frac{f - d}{2 \cdot f} = 1.00000$$

$$\frac{d}{f} = -1.00000$$



$a = -0.28336$

$b = -0.70443$

$c = -0.47405$

$d = 0.42107$

$e = 0.17730$

$f = 0.42107$

$$c - \frac{a \cdot b}{b - a} = 0.00000$$

$$\frac{1}{a} = -3.52909$$

$$\frac{1}{b} = -1.41959$$

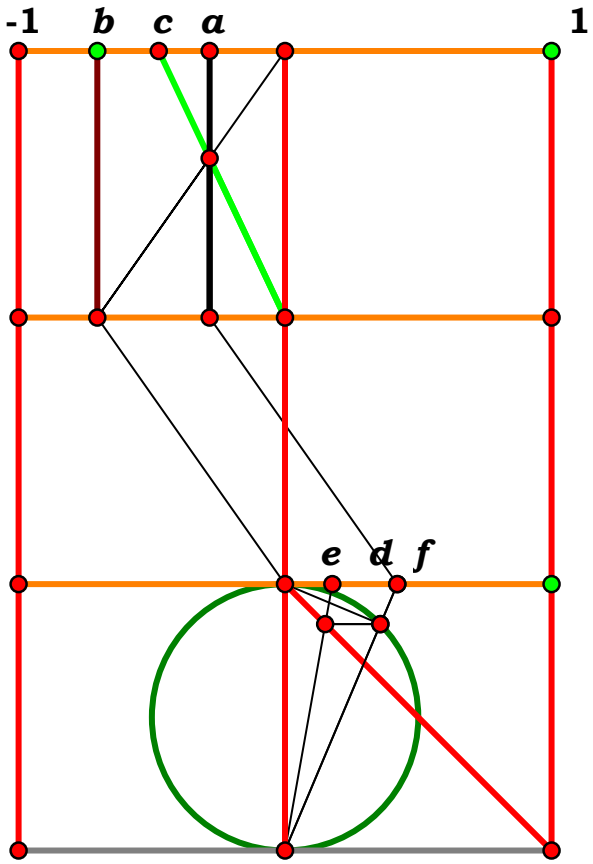
$$\frac{1}{c} = -2.10950$$

$$\frac{1}{c} - \left( \frac{1}{a} - \frac{1}{b} \right) = 0.00000$$

$$\frac{d + f}{2 \cdot d} = 1.00000$$

$$\frac{f - d}{2 \cdot f} = 0.00000$$

$$\frac{d}{f} = 1.00000$$



# Addition A

$a = 0.54787$

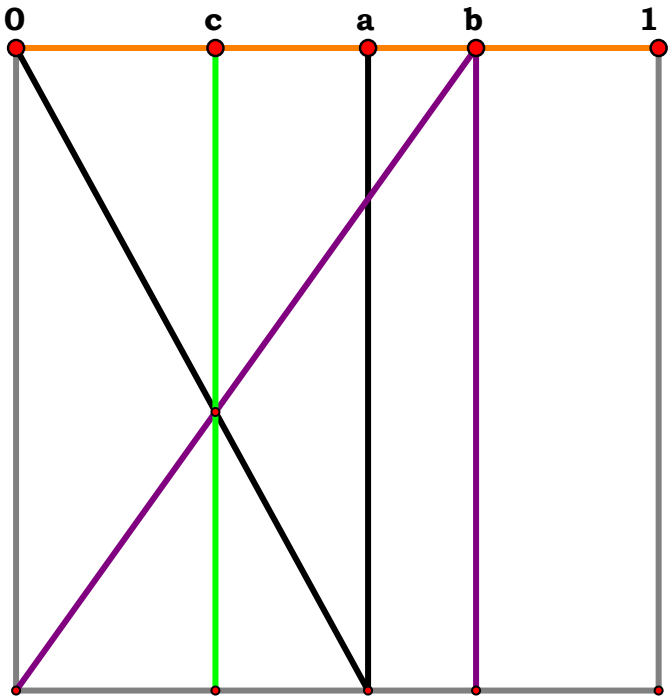
$b = 0.71597$

$c = 0.31037$

$\frac{1}{a} = 1.82525$

$\frac{1}{b} = 1.39671$

$\frac{1}{c} = 3.22196$




$$\frac{1}{c} - \left(\frac{1}{a} + \frac{1}{b}\right) = 0.00000$$

$$c - \frac{a \cdot b}{b + a} = 0.00000$$

$$1 - \frac{a \cdot b}{c \cdot (a + b)} = 0.00000$$

$$\frac{1}{b} - \left(\frac{1}{c} - \frac{1}{a}\right) = 0.00000$$

$$\frac{1}{b} - \frac{a - c}{a \cdot c} = 0.00000$$

$$b - \frac{a \cdot c}{a - c} = 0.00000$$

$$1 - \frac{a \cdot c}{b \cdot (a - c)} = 0.00000$$

$$\frac{1}{a} - \left(\frac{1}{c} - \frac{1}{b}\right) = 0.00000$$

$$\frac{1}{a} - \frac{b - c}{b \cdot c} = 0.00000$$

$$a - \frac{b \cdot c}{b - c} = 0.00000$$

$$1 - \frac{b \cdot c}{a \cdot (b - c)} = 0.00000$$

$a = 0.54787$

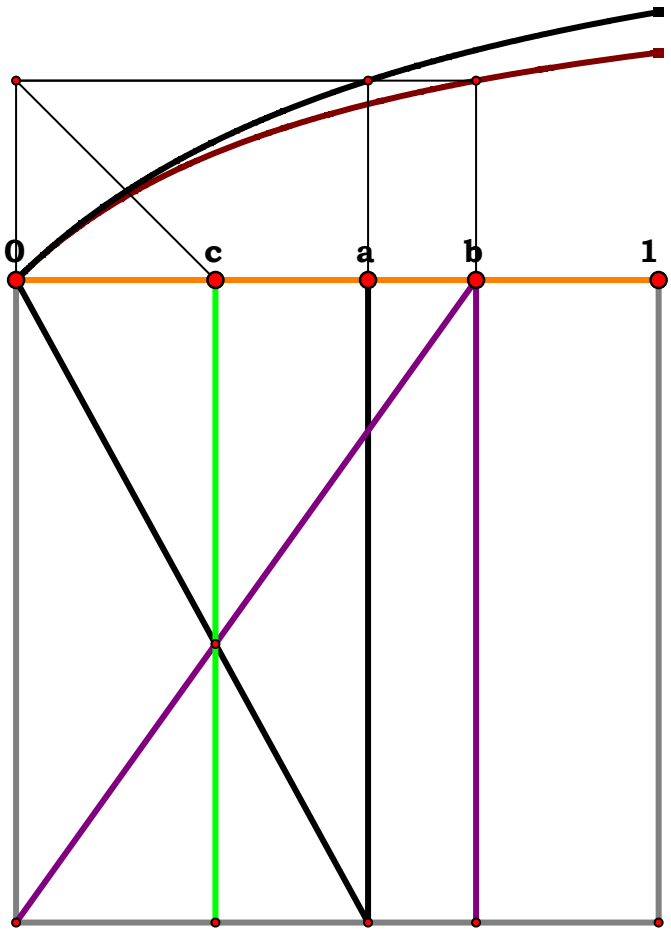
$b = 0.71597$

$c = 0.31037$

$\frac{1}{a} = 1.82525$

$\frac{1}{b} = 1.39671$

$\frac{1}{c} = 3.22196$




# Addition B

$$\frac{1}{c} - \left(\frac{1}{a} + \frac{1}{b}\right) = 0.00000$$

$$c - \frac{a \cdot b}{b + a} = 0.00000$$

$$1 - \frac{a \cdot b}{c \cdot (a + b)} = 0.00000$$

$$\frac{1}{b} - \left(\frac{1}{c} - \frac{1}{a}\right) = 0.00000$$

$$\frac{1}{b} - \frac{a - c}{a \cdot c} = 0.00000$$

$$b - \frac{a \cdot c}{a - c} = 0.00000$$

$$1 - \frac{a \cdot c}{b \cdot (a - c)} = 0.00000$$

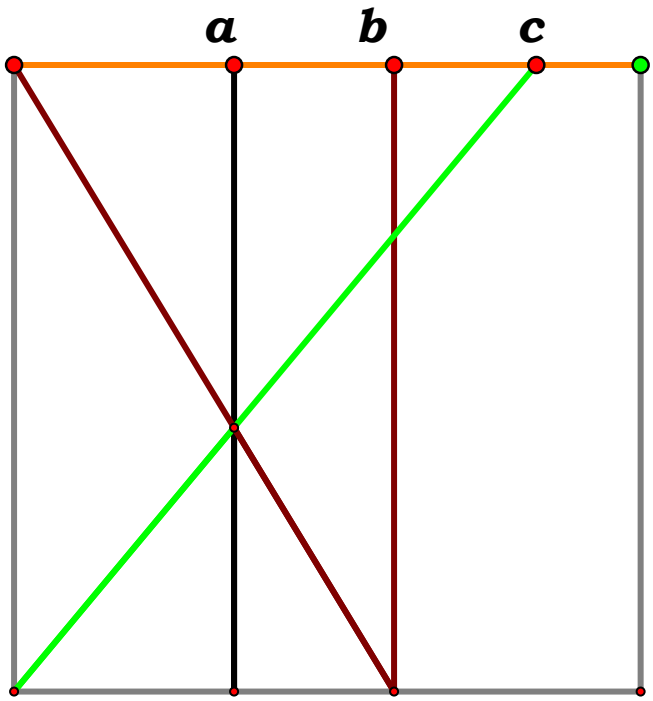
$$\frac{1}{a} - \left(\frac{1}{c} - \frac{1}{b}\right) = 0.00000$$

$$\frac{1}{a} - \frac{b - c}{b \cdot c} = 0.00000$$

$$a - \frac{b \cdot c}{b - c} = 0.00000$$

$$1 - \frac{b \cdot c}{a \cdot (b - c)} = 0.00000$$

# Subtraction A




$a = 0.35112$

$b = 0.60664$

$c = 0.83363$

$\frac{1}{a} = 2.84800$

$\frac{1}{b} = 1.64843$

$\frac{1}{c} = 1.19957$

$$\frac{1}{c} - \left(\frac{1}{a} - \frac{1}{b}\right) = 0.00000$$

$$c - \frac{a \cdot b}{b - a} = 0.00000$$

$$c \cdot (b - a) - a \cdot b = 0.00000$$

$$b - \left(a + \frac{a \cdot b}{c}\right) = 0.00000$$

$$\frac{1}{b} - \left(\frac{1}{a} - \frac{1}{c}\right) = 0.00000$$

$$\frac{1}{b} - \frac{c - a}{a \cdot c} = 0.00000$$

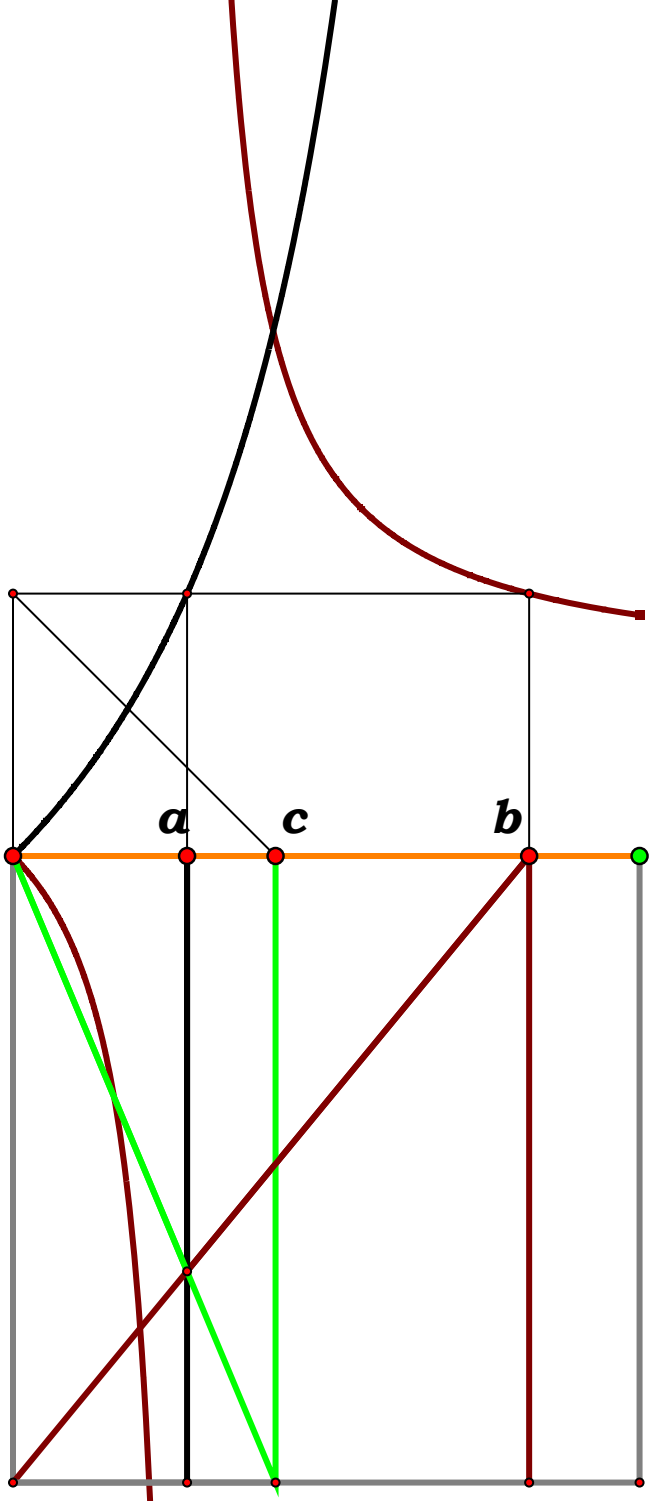
$$b - \frac{a \cdot c}{c - a} = 0.00000$$

$$b \cdot (c - a) - a \cdot c = 0.00000$$

$$\frac{1}{a} - \left(\frac{1}{b} + \frac{1}{c}\right) = 0.00000$$

$$\frac{1}{a} - \frac{b + c}{b \cdot c} = 0.00000$$

$$a - \frac{b \cdot c}{b + c} = 0.00000$$




$a = 0.27770$

$b = 0.82372$

$c = 0.41893$

$\frac{1}{a} = 3.60103$

$\frac{1}{b} = 1.21401$

$\frac{1}{c} = 2.38703$

# Subtraction B

$$\frac{1}{c} - \left(\frac{1}{a} - \frac{1}{b}\right) = 0.00000$$

$$c - \frac{a \cdot b}{b - a} = 0.00000$$

$$a \cdot b - (c \cdot (b - a)) = 0.00000$$

$$b - \left(a + \frac{a \cdot b}{c}\right) = 0.00000$$

$$\frac{1}{b} - \left(\frac{1}{a} - \frac{1}{c}\right) = 0.00000$$

$$\frac{1}{b} - \frac{c - a}{a \cdot c} = 0.00000$$

$$b - \frac{a \cdot c}{c - a} = 0.00000$$

$$a \cdot c - b \cdot (c - a) = 0.00000$$

$$\frac{1}{a} - \left(\frac{1}{b} + \frac{1}{c}\right) = 0.00000$$

$$\frac{1}{a} - \frac{b + c}{b \cdot c} = 0.00000$$

$$a - \frac{b \cdot c}{b + c} = 0.00000$$

# Division A

$a = 0.33619$

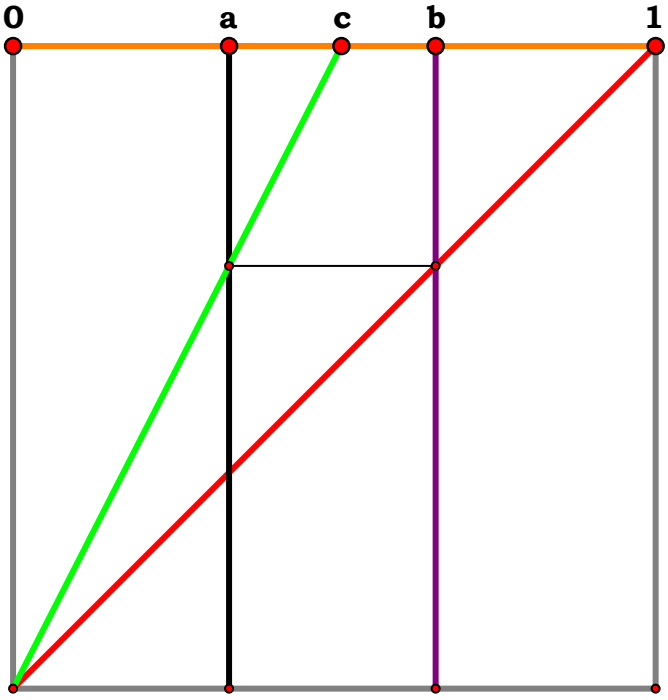
$b = 0.65781$

$c = 0.51108$

$\frac{1}{a} = 2.97448$

$\frac{1}{b} = 1.52021$

$\frac{1}{c} = 1.95663$




$c - \frac{a}{b} = 0.00000$

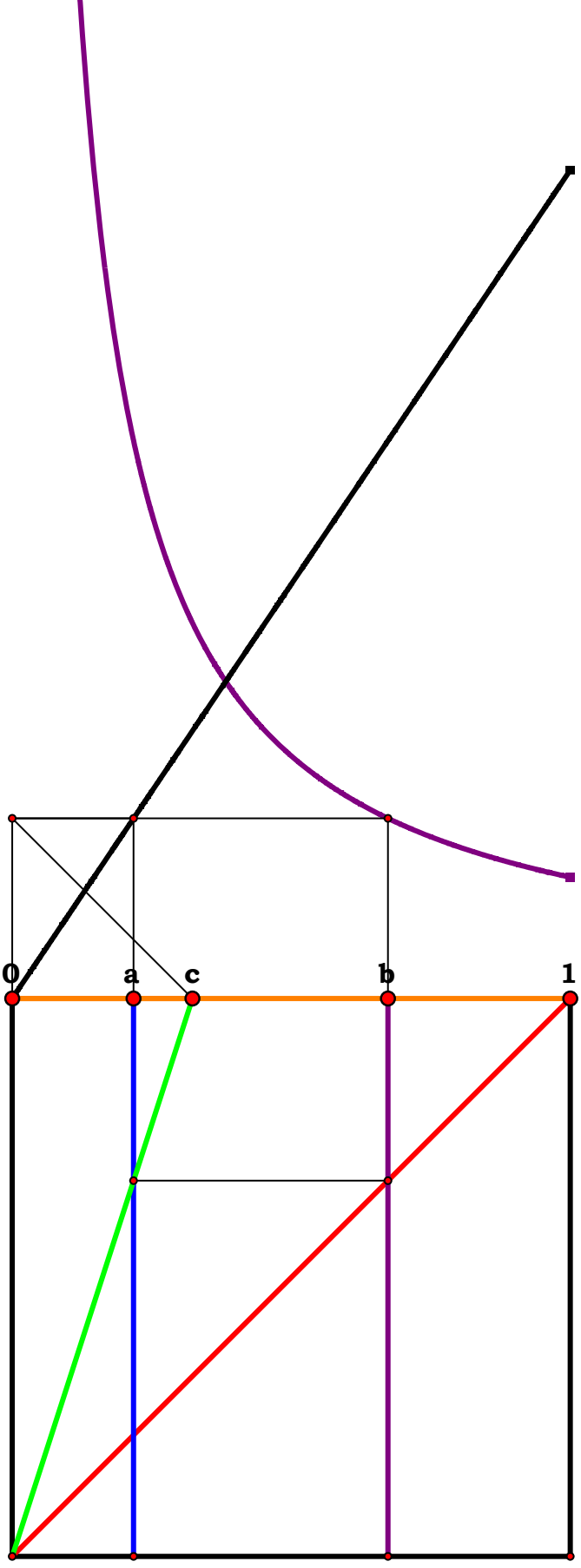
$1 - \frac{a}{b \cdot c} = 0.00000$

$a - b \cdot c = 0.00000$

$1 - \frac{b \cdot c}{a} = 0.00000$

$b - \frac{a}{c} = 0.00000$

$1 - \frac{a}{b \cdot c} = 0.00000$




$a = 0.21750$

$b = 0.67343$

$c = 0.32297$

$\frac{1}{a} = 4.59772$

$\frac{1}{b} = 1.48494$

$\frac{1}{c} = 3.09624$

$c - \frac{a}{b} = 0.00000$

$1 - \frac{a}{b \cdot c} = 0.00000$

$a - b \cdot c = 0.00000$

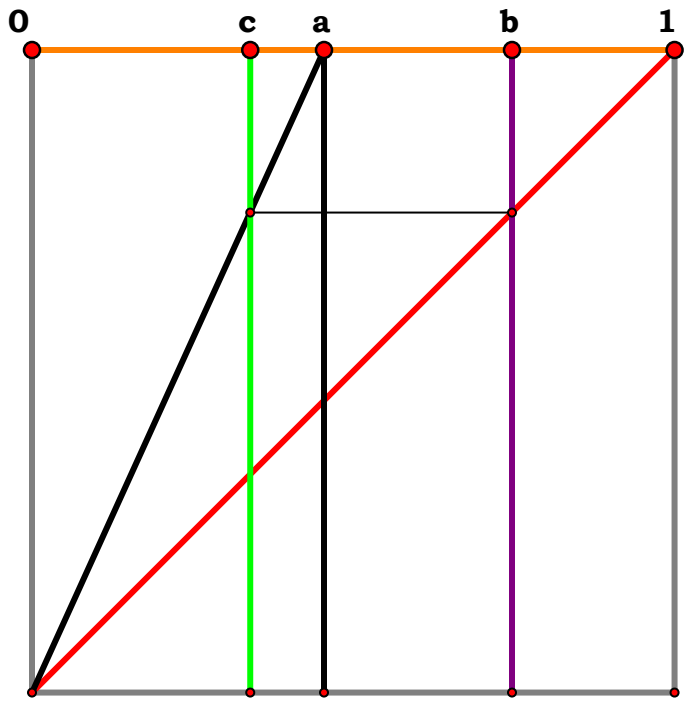
$1 - \frac{b \cdot c}{a} = 0.00000$

$b - \frac{a}{c} = 0.00000$

$1 - \frac{a}{b \cdot c} = 0.00000$

# Division B

# Multiplication A




$a = 0.45448$

$b = 0.74710$

$c = 0.33954$

$\frac{1}{a} = 2.20030$

$\frac{1}{b} = 1.33852$

$\frac{1}{c} = 2.94514$

$c - (a \cdot b) = 0.00000$

$1 - \frac{a \cdot b}{c} = 0.00000$

$\frac{1}{b} - \frac{a}{c} = 0.00000$

$b - \frac{c}{a} = 0.00000$

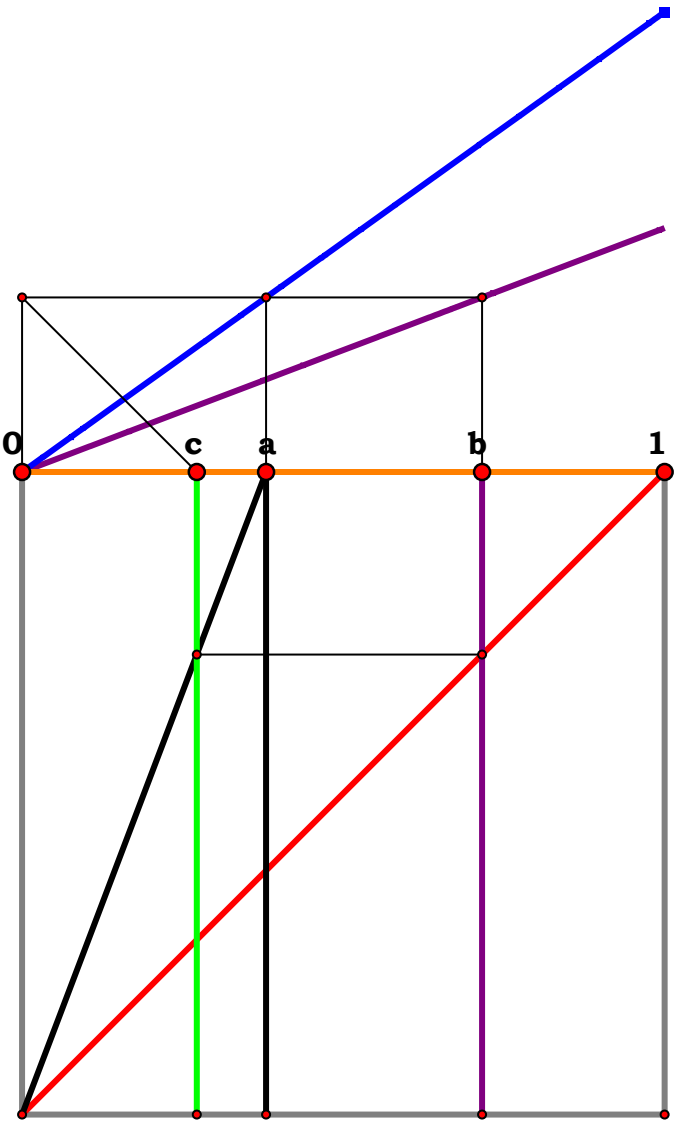
$1 - \frac{c}{a \cdot b} = 0.00000$

$\frac{1}{a} - \frac{b}{c} = 0.00000$

$a - \frac{c}{b} = 0.00000$

$1 - \frac{c}{a \cdot b} = 0.00000$

$1 - \frac{a \cdot b}{c} = 0.00000$




$a = 0.37977$

$b = 0.71597$

$c = 0.27191$

$\frac{1}{a} = 2.63315$

$\frac{1}{b} = 1.39671$

$\frac{1}{c} = 3.67775$

$c - (a \cdot b) = 0.00000$

$1 - \frac{a \cdot b}{c} = 0.00000$

$\frac{1}{b} - \frac{a}{c} = 0.00000$

$b - \frac{c}{a} = 0.00000$

$1 - \frac{c}{a \cdot b} = 0.00000$

$\frac{1}{a} - \frac{b}{c} = 0.00000$

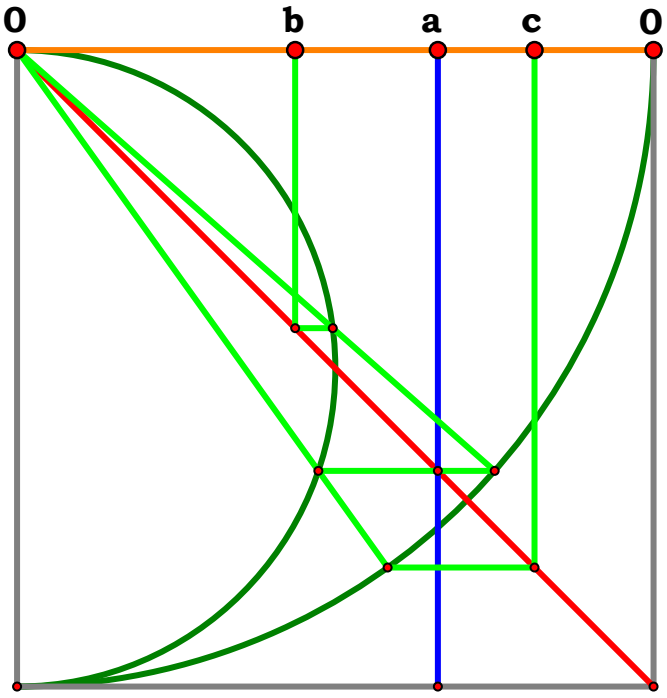
$a - \frac{c}{b} = 0.00000$

$1 - \frac{c}{a \cdot b} = 0.00000$

$1 - \frac{a \cdot b}{c} = 0.00000$

# Multiplication B

# Powers A




$a = 0.66105$

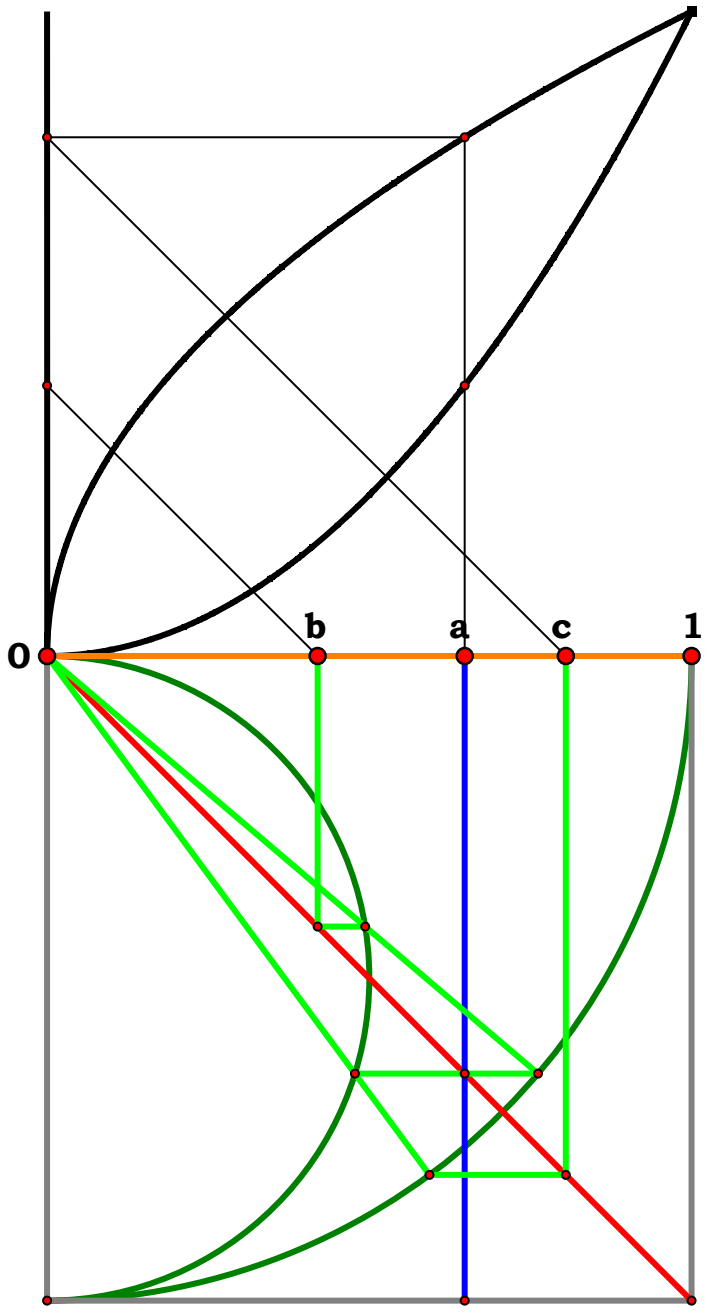
$b = 0.43699$

$c = 0.81305$

$\frac{1}{a} = 1.51273$

$\sqrt{a} - c = 0.00000$

$a^2 - b = 0.00000$




$a = 0.64791$

$b = 0.41978$

$c = 0.80493$

$\frac{1}{a} = 1.54343$

$\sqrt{a} - c = 0.00000$

$a^2 - b = 0.00000$

# Powers B

$a = 0.50000$

$b = 0.12500$

$c = 0.79370$

$\frac{1}{a} = 2.00000$

$\frac{1}{b} = 8.00000$

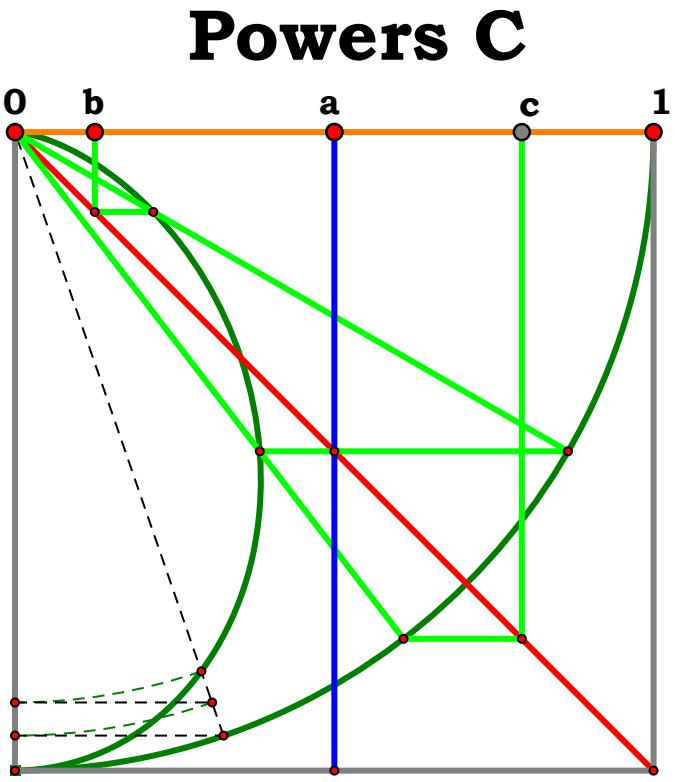
$\frac{1}{c} = 1.25992$

$a^3 - b = 0.00000$

$a^{\frac{1}{3}} - c = 0.00000$

$\left(\frac{1}{a}\right)^3 - \frac{1}{b} = 0.00000$

$\left(\frac{1}{a}\right)^{\frac{1}{3}} - \frac{1}{c} = 0.00000$



$a = 0.50000$

$b = 0.12500$

$c = 0.79370$

$\frac{1}{a} = 2.00000$

$\frac{1}{b} = 8.00000$

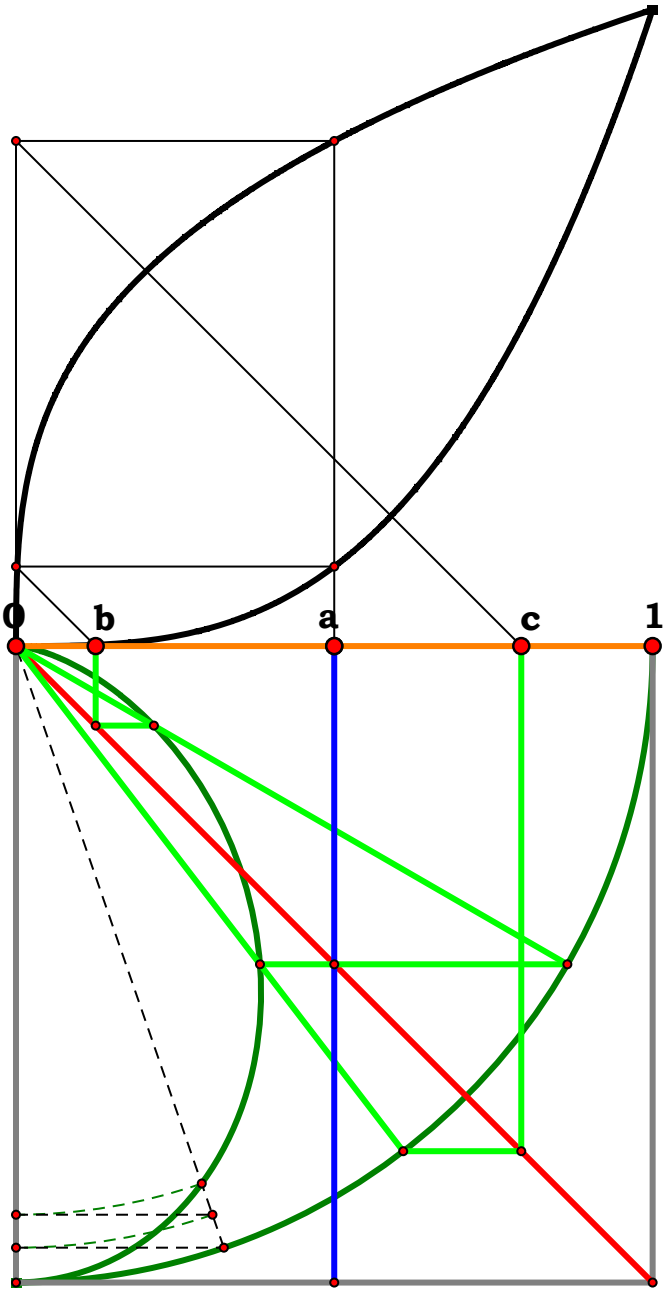
$\frac{1}{c} = 1.25992$

$a^3 - b = 0.00000$

$a^{\frac{1}{3}} - c = 0.00000$

$\left(\frac{1}{a}\right)^3 - \frac{1}{b} = 0.00000$

$\left(\frac{1}{a}\right)^{\frac{1}{3}} - \frac{1}{c} = 0.00000$



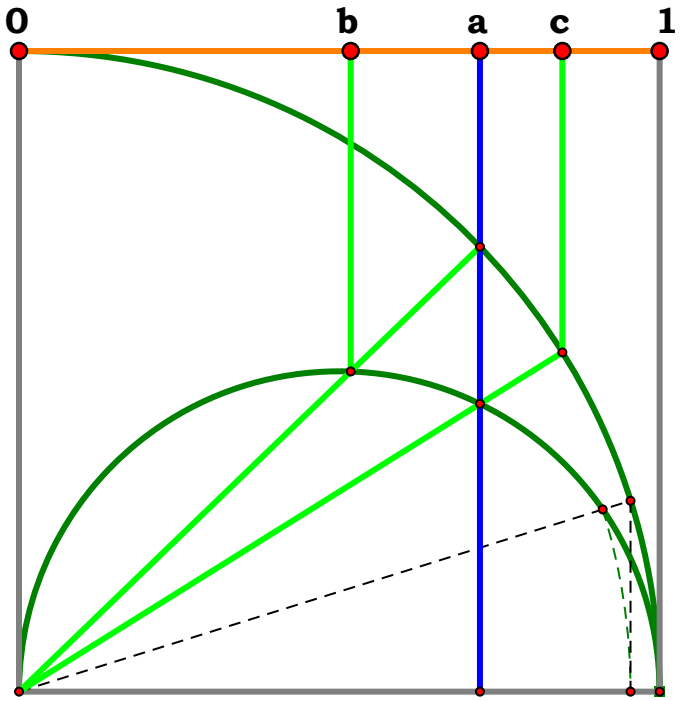

# Powers D

$a = 0.71954$

$b = 0.51773$

$c = 0.84825$

# Powers E




$\frac{1}{a} = 1.38978$

$\frac{1}{b} = 1.93150$

$\frac{1}{c} = 1.17889$

$a^2 = 0.51773$

$\sqrt{a} = 0.84825$

$a^2 - b = 0.00000$

$\sqrt{a} - c = 0.00000$

$\frac{1}{a^2} - \frac{1}{b} = 0.00000$

$\frac{1}{\sqrt{a}} - \frac{1}{c} = 0.00000$

$a = 0.71954$

$b = 0.51773$

$c = 0.84825$

$\frac{1}{a} = 1.38978$

$\frac{1}{b} = 1.93150$

$\frac{1}{c} = 1.17889$

$a^2 = 0.51773$

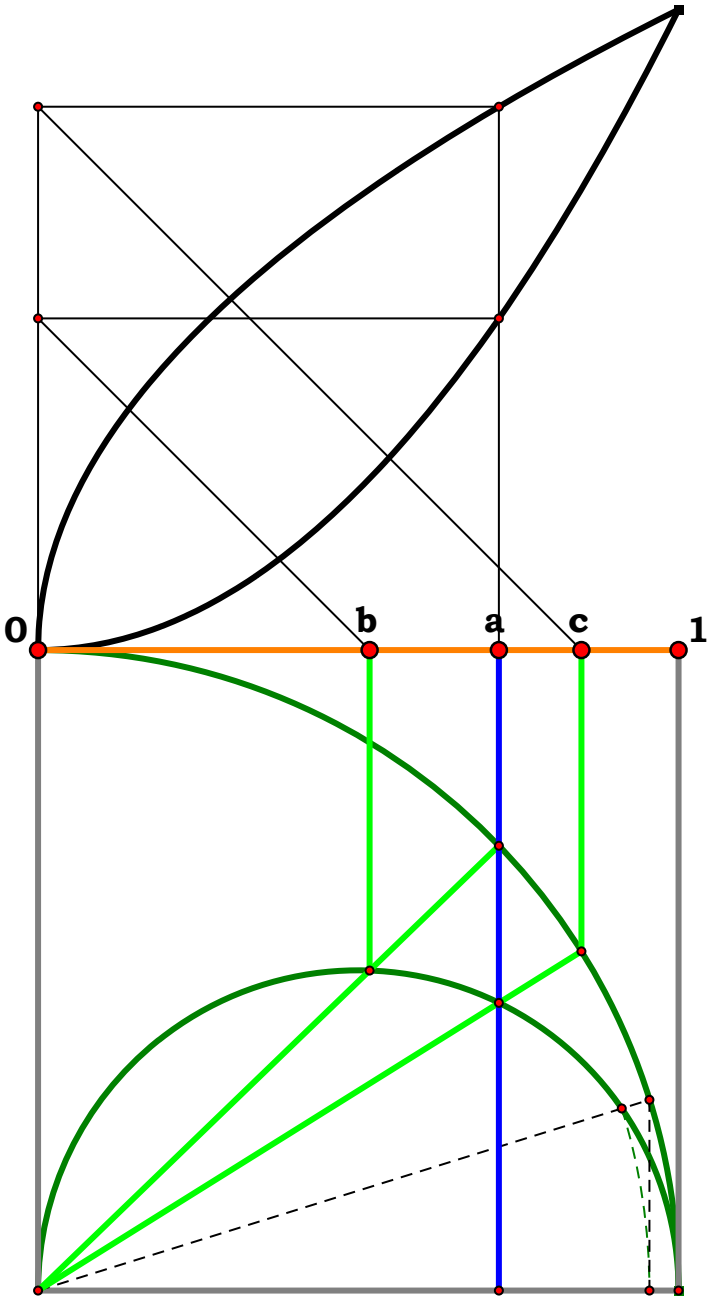
$\sqrt{a} = 0.84825$

$a^2 - b = 0.00000$

$\sqrt{a} - c = 0.00000$

$\frac{1}{a^2} - \frac{1}{b} = 0.00000$

$\frac{1}{\sqrt{a}} - \frac{1}{c} = 0.00000$




# Powers F

$a = 0.62506$

$b = 0.24421$

$c = 0.85502$

$\frac{1}{a} = 1.59984$

$\frac{1}{b} = 4.09476$

$\frac{1}{c} = 1.16957$

$a^3 = 0.24421$

$a^{\frac{1}{3}} = 0.85502$

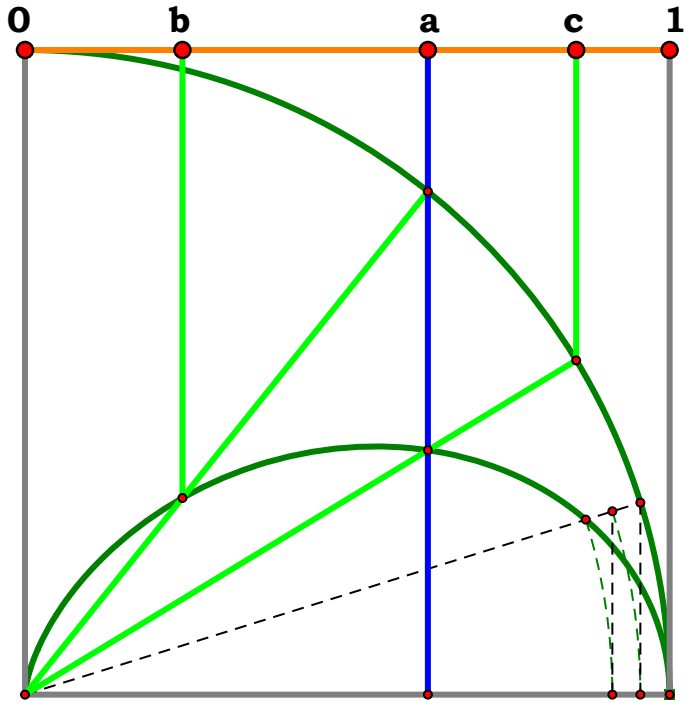
$a^3 - b = 0.00000$

$a^{\frac{1}{3}} - c = 0.00000$

$\frac{1}{a^3} - \frac{1}{b} = 0.00000$

$\frac{1}{a^{\frac{1}{3}}} - \frac{1}{c} = 0.00000$

# Powers G



$a = 0.62506$

$b = 0.24421$

$c = 0.85502$

$\frac{1}{a} = 1.59984$

$\frac{1}{b} = 4.09476$

$\frac{1}{c} = 1.16957$

$a^3 = 0.24421$

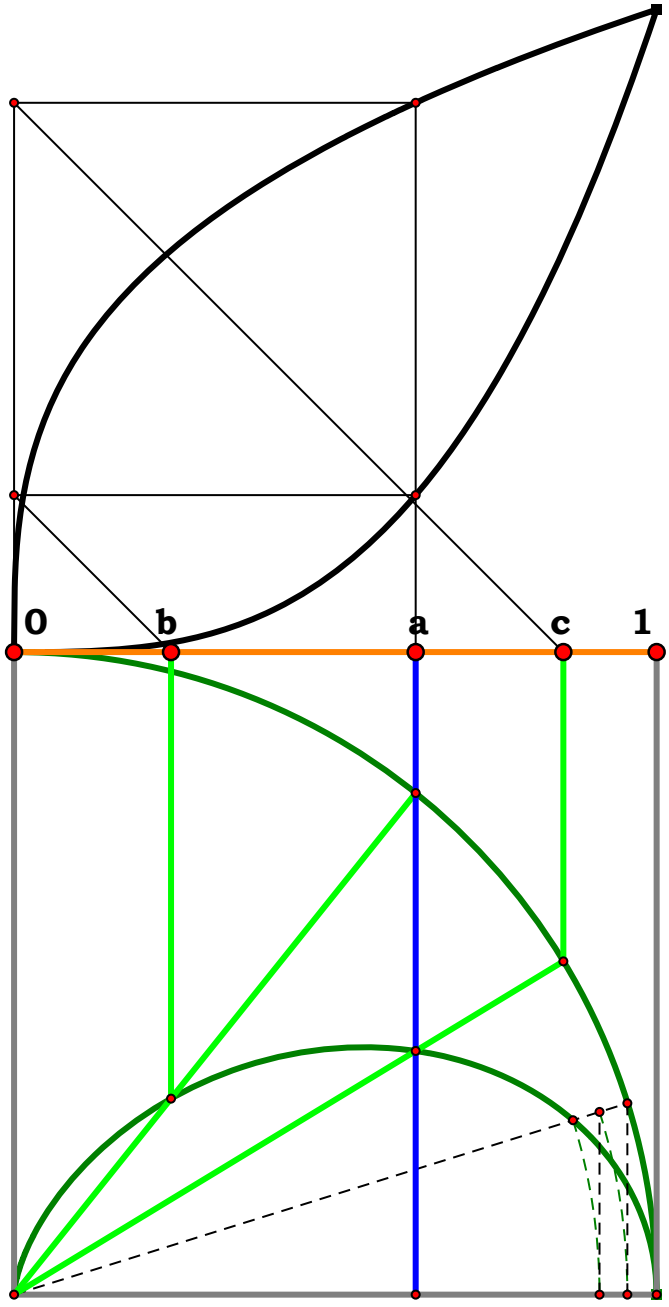
$a^{\frac{1}{3}} = 0.85502$

$a^3 - b = 0.00000$

$a^{\frac{1}{3}} - c = 0.00000$

$\frac{1}{a^3} - \frac{1}{b} = 0.00000$

$\frac{1}{a^{\frac{1}{3}}} - \frac{1}{c} = 0.00000$




# Powers H

$a = 0.64126$

$b = 0.41121$

$c = 0.80079$

$a^2 - b = 0.00000$

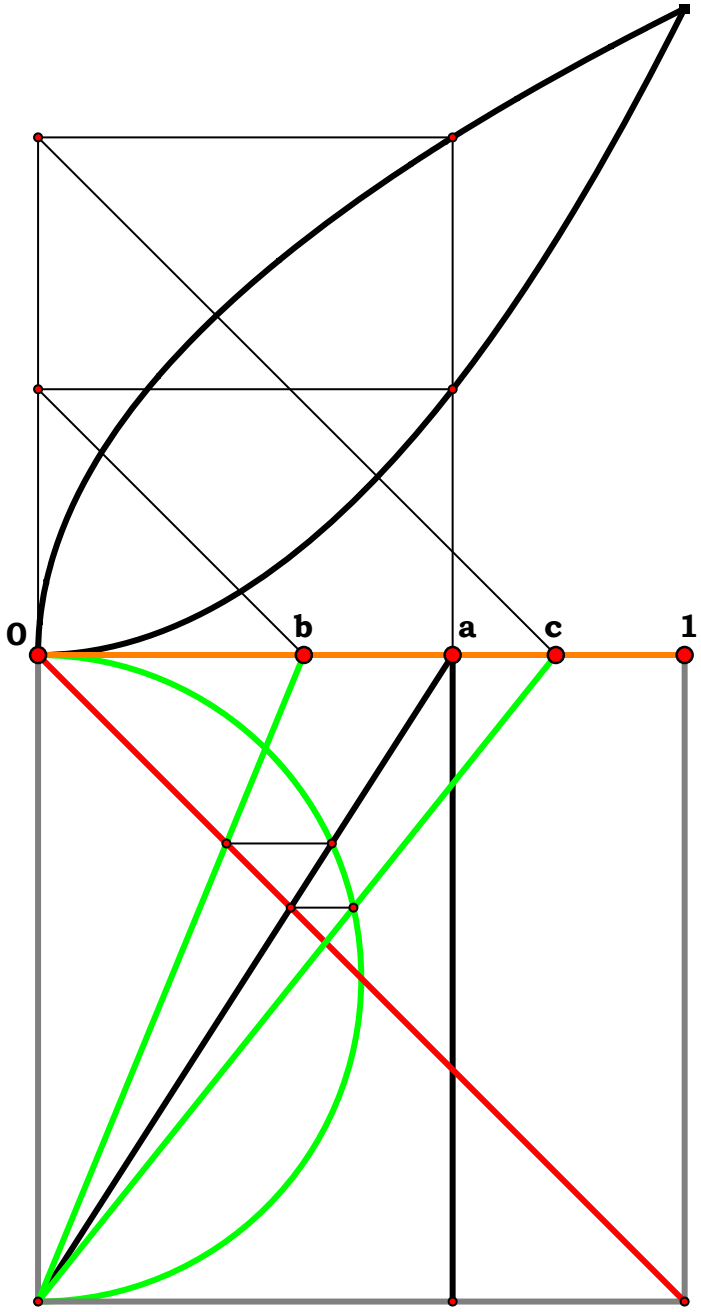
$\sqrt{a} - c = 0.00000$

$\frac{1}{a} = 1.55944$

$\frac{1}{c} = 1.24877$

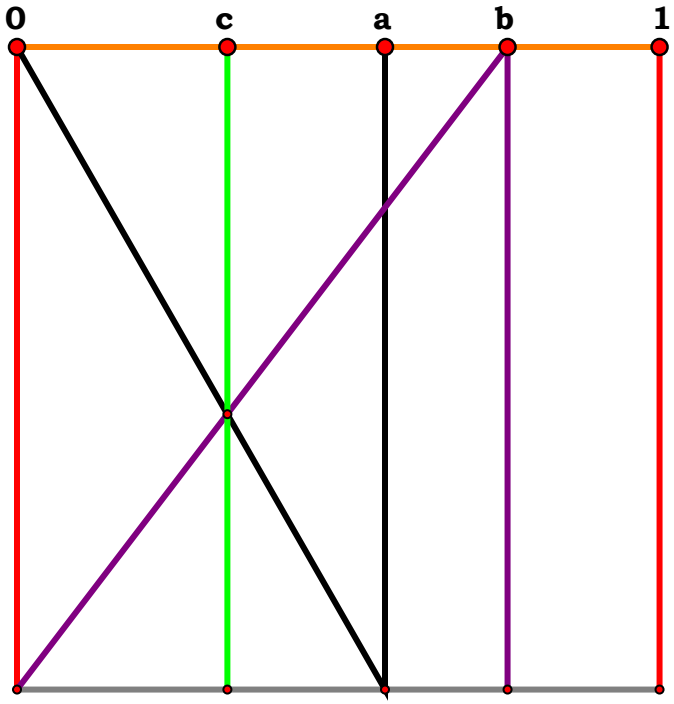
$\frac{1}{\sqrt{a}} - \frac{1}{c} = 0.00000$

$\frac{1}{b^{\frac{1}{2}}} - \frac{1}{a} = 0.00000$




# Powers I

# Addition




$a = 0.57277$

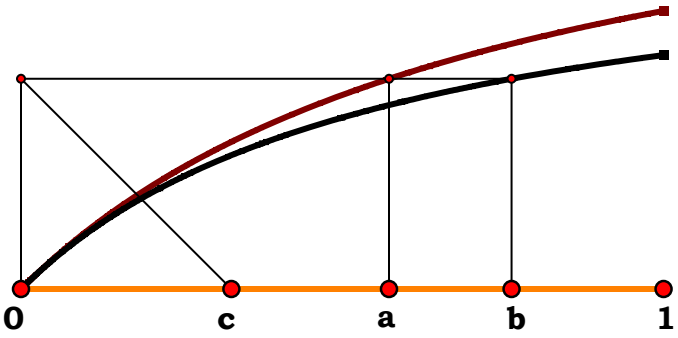
$b = 0.76342$

$c = 0.32725$

$\frac{1}{a} = 1.74589$

$\frac{1}{b} = 1.30990$

$\frac{1}{c} = 3.05579$




$$\frac{1}{a} - \left(\frac{1}{c} - \frac{1}{b}\right) = 0.00000$$

$$\frac{1}{b} - \left(\frac{1}{c} - \frac{1}{a}\right) = 0.00000$$

$$\frac{1}{c} - \left(\frac{1}{a} + \frac{1}{b}\right) = 0.00000$$

$$\frac{a \cdot b}{a + b} - c = 0.00000$$

$$\frac{a \cdot c}{a - c} - b = 0.00000$$

$$\frac{b \cdot c}{b - c} - a = 0.00000$$

$$1 - \frac{a \cdot b}{c \cdot (a + b)} = 0.00000$$

$$1 - \frac{a \cdot c}{b \cdot (a - c)} = 0.00000$$

$$1 - \frac{b \cdot c}{a \cdot (b - c)} = 0.00000$$

$$1 - \frac{c \cdot (a + b)}{a \cdot b} = 0.00000$$

$$1 - \frac{b \cdot (a - c)}{a \cdot c} = 0.00000$$

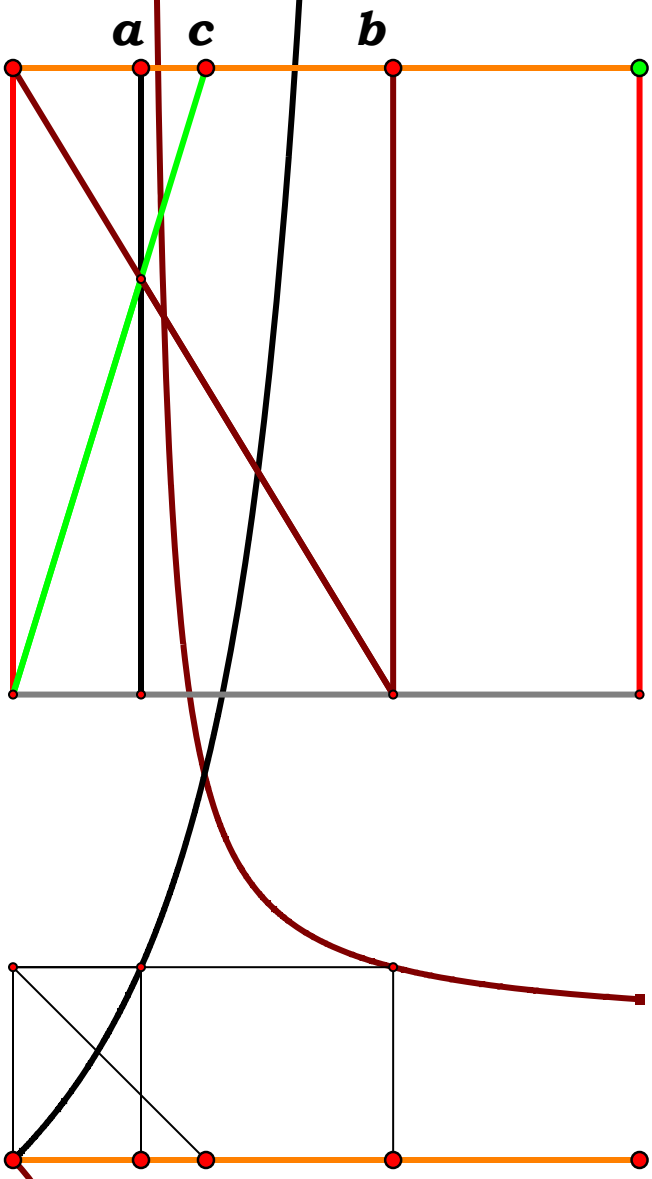
$$1 - \frac{a \cdot (b - c)}{b \cdot c} = 0.00000$$

$$c \cdot (a + b) - a \cdot b = 0.00000$$

$$b \cdot (a - c) - a \cdot c = 0.00000$$

$$a \cdot (b - c) - b \cdot c = 0.00000$$

# Subtraction




$a = 0.20427$

$b = 0.60664$

$c = 0.30798$

$\frac{1}{a} = 4.89541$

$\frac{1}{b} = 1.64843$

$\frac{1}{c} = 3.24698$

$\frac{1}{c} - \left(\frac{1}{a} - \frac{1}{b}\right) = 0.00000$

$c - \frac{a \cdot b}{b - a} = 0.00000$

$c \cdot (b - a) - a \cdot b = 0.00000$

$b - \left(a + \frac{a \cdot b}{c}\right) = 0.00000$

$\frac{1}{b} - \left(\frac{1}{a} - \frac{1}{c}\right) = 0.00000$

$\frac{1}{b} - \frac{c - a}{a \cdot c} = 0.00000$

$b - \frac{a \cdot c}{c - a} = 0.00000$

$b \cdot (c - a) - a \cdot c = 0.00000$

$\frac{1}{a} - \left(\frac{1}{b} + \frac{1}{c}\right) = 0.00000$

$\frac{1}{a} - \frac{b + c}{b \cdot c} = 0.00000$

$a - \frac{b \cdot c}{b + c} = 0.00000$

# Division

$a = 0.29884$

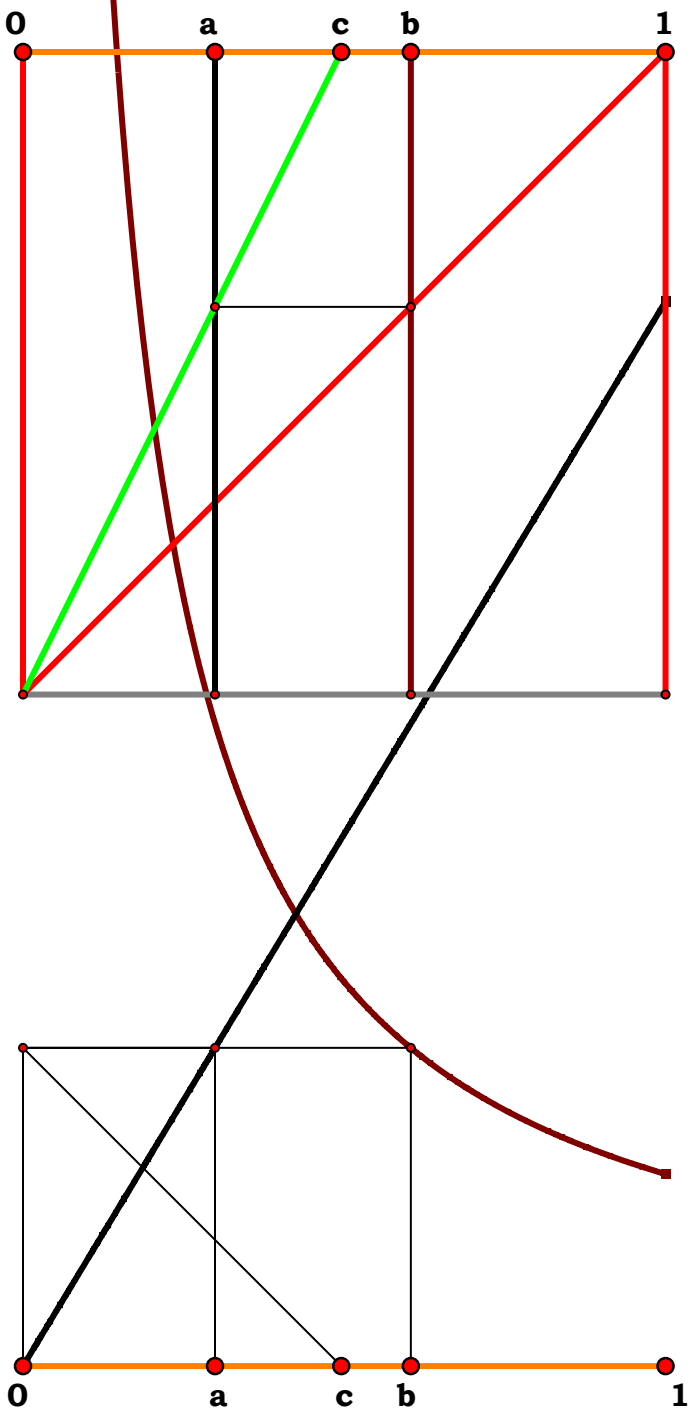
$b = 0.60346$

$c = 0.49521$

$\frac{1}{a} = 3.34629$

$\frac{1}{b} = 1.65711$

$\frac{1}{c} = 2.01935$




$a - b \cdot c = 0.00000$

$b - \frac{a}{c} = 0.00000$

$c - \frac{a}{b} = 0.00000$

$1 - \frac{b \cdot c}{a} = 0.00000$

$1 - \frac{a}{b \cdot c} = 0.00000$

# Multiplication

$a = 0.46071$

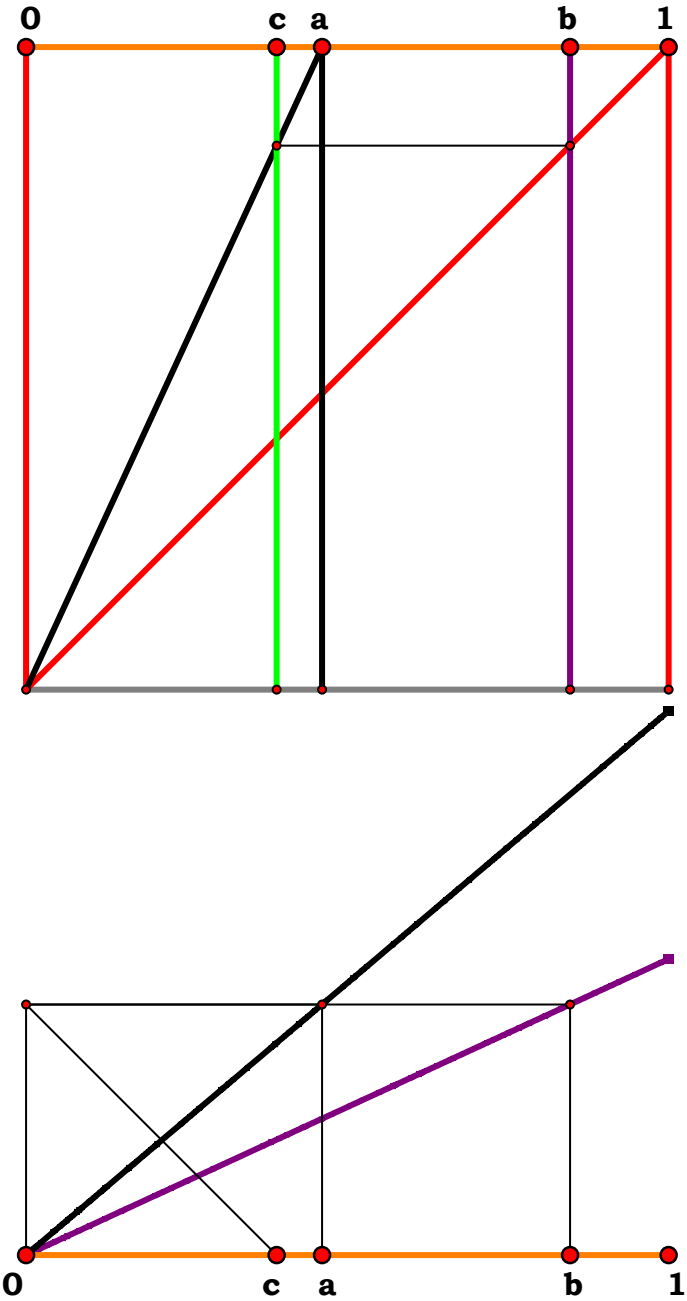
$b = 0.84671$

$c = 0.39009$

$\frac{1}{a} = 2.17057$

$\frac{1}{b} = 1.18104$

$\frac{1}{c} = 2.56354$




$\frac{1}{c} - \left(\frac{1}{a} \cdot \frac{1}{b}\right) = 0.00000$

$\frac{1}{c} - \left(\frac{1}{a \cdot b}\right) = 0.00000$

$c - a \cdot b = 0.00000$

$1 - \frac{a \cdot b}{c} = 0.00000$

$\frac{1}{b} - \frac{a}{c} = 0.00000$

$b - \frac{c}{a} = 0.00000$

$1 - \frac{c}{a \cdot b} = 0.00000$

$\frac{1}{a} - \frac{b}{c} = 0.00000$

$a - \frac{c}{b} = 0.00000$

$1 - \frac{c}{a \cdot b} = 0.00000$

# Powers A

$a = 0.66105$

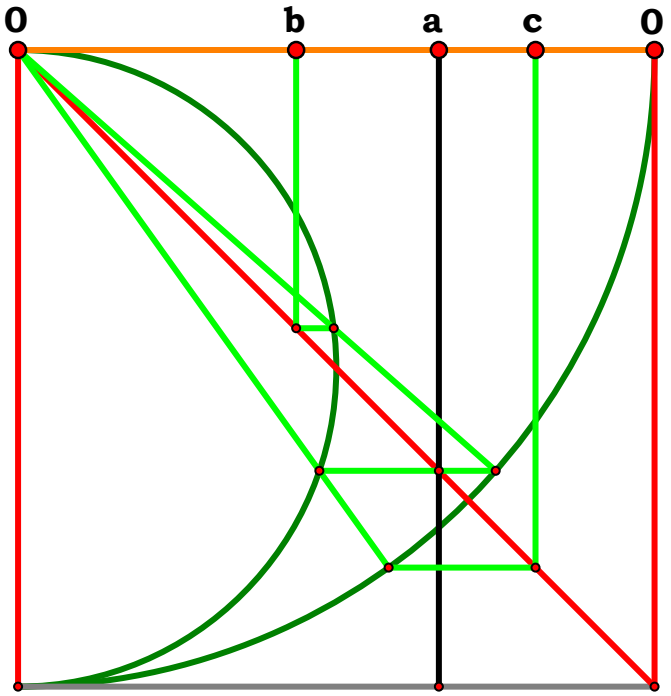
$b = 0.43699$

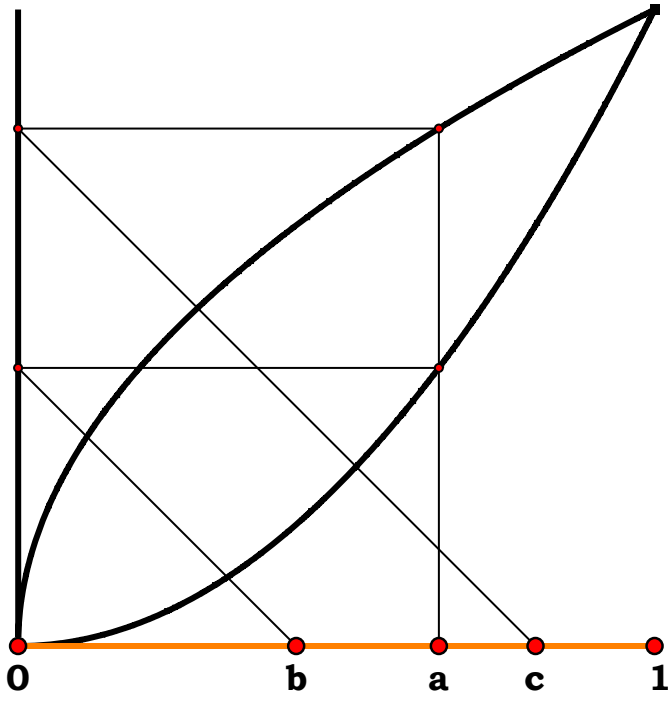
$c = 0.81305$

$\frac{1}{a} = 1.51273$

$\sqrt{a} - c = 0.00000$

$a^2 - b = 0.00000$



# Powers B

$a = 0.50000$

$b = 0.12500$

$c = 0.79370$

$\frac{1}{a} = 2.00000$

$\frac{1}{b} = 8.00000$

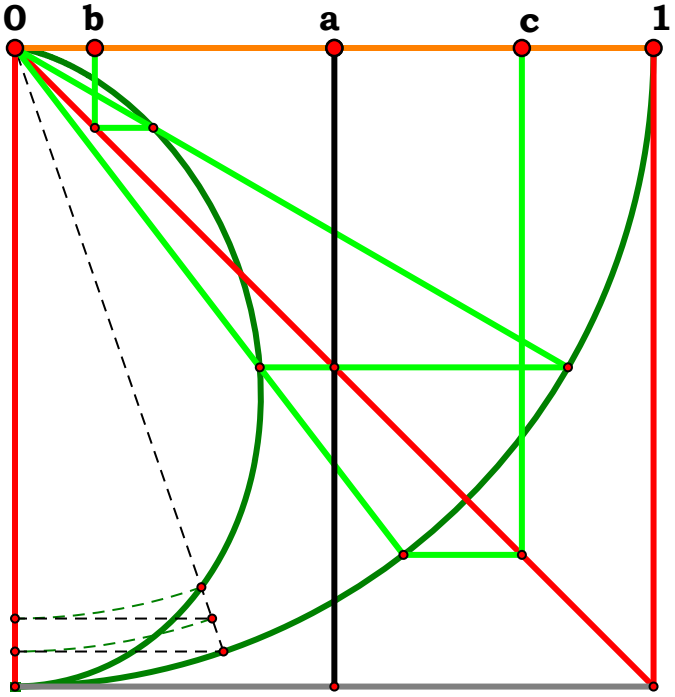
$\frac{1}{c} = 1.25992$

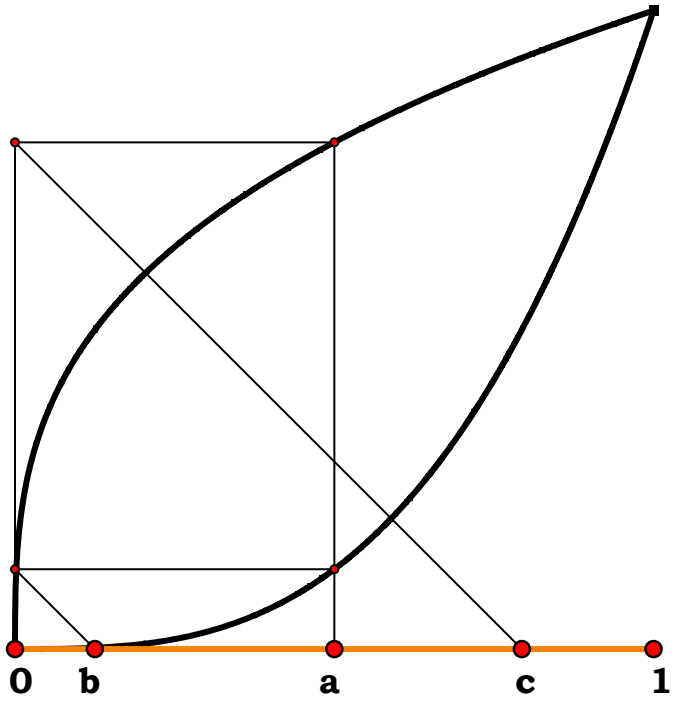
$a^3 - b = 0.00000$

$a^{\frac{1}{3}} - c = 0.00000$

$\left(\frac{1}{a}\right)^3 - \frac{1}{b} = 0.00000$

$\left(\frac{1}{a}\right)^{\frac{1}{3}} - \frac{1}{c} = 0.00000$



# Powers C

$a = 0.71954$

$b = 0.51773$

$c = 0.84825$

$\frac{1}{a} = 1.38978$

$\frac{1}{b} = 1.93150$

$\frac{1}{c} = 1.17889$

$a^2 = 0.51773$

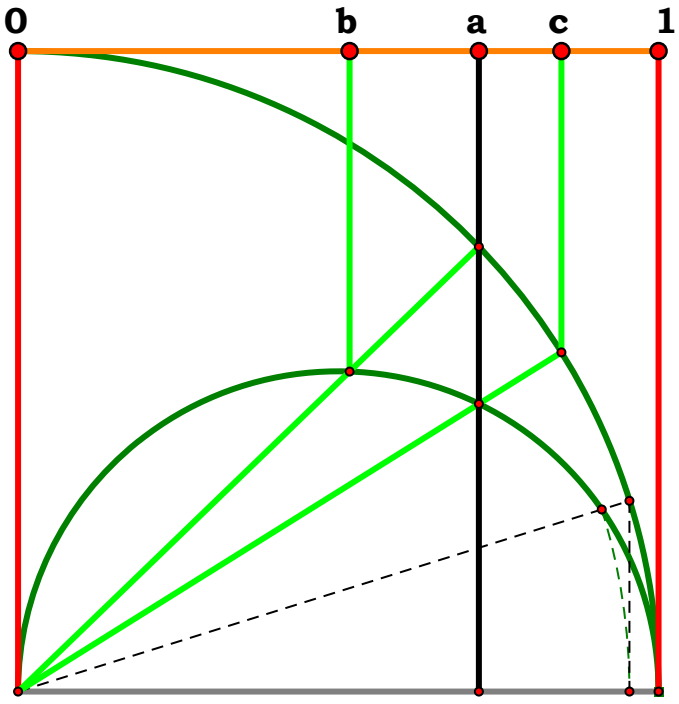
$\sqrt{a} = 0.84825$

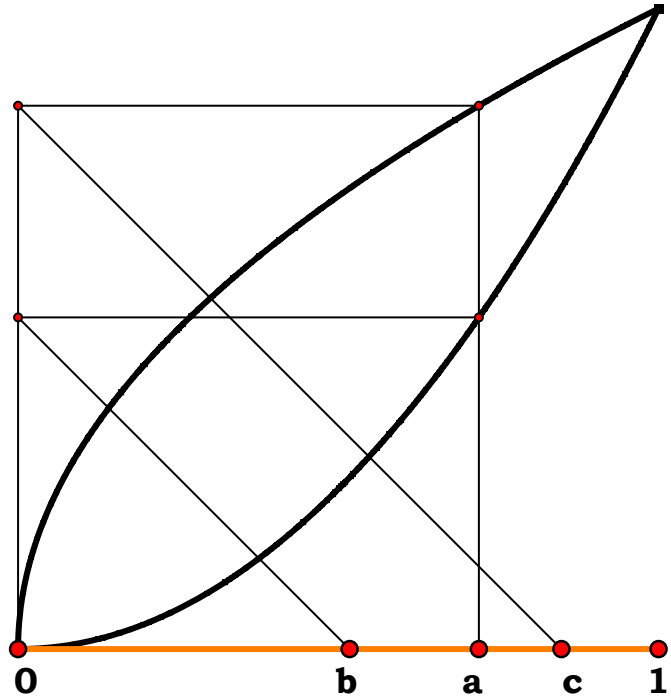
$a^2 - b = 0.00000$

$\sqrt{a} - c = 0.00000$

$\frac{1}{a^2} - \frac{1}{b} = 0.00000$

$\frac{1}{\sqrt{a}} - \frac{1}{c} = 0.00000$



# Powers D

$a = 0.57851$

$b = 0.19362$

$c = 0.83324$

$\frac{1}{a} = 1.72857$

$\frac{1}{b} = 5.16485$

$\frac{1}{c} = 1.20013$

$a^3 = 0.19362$

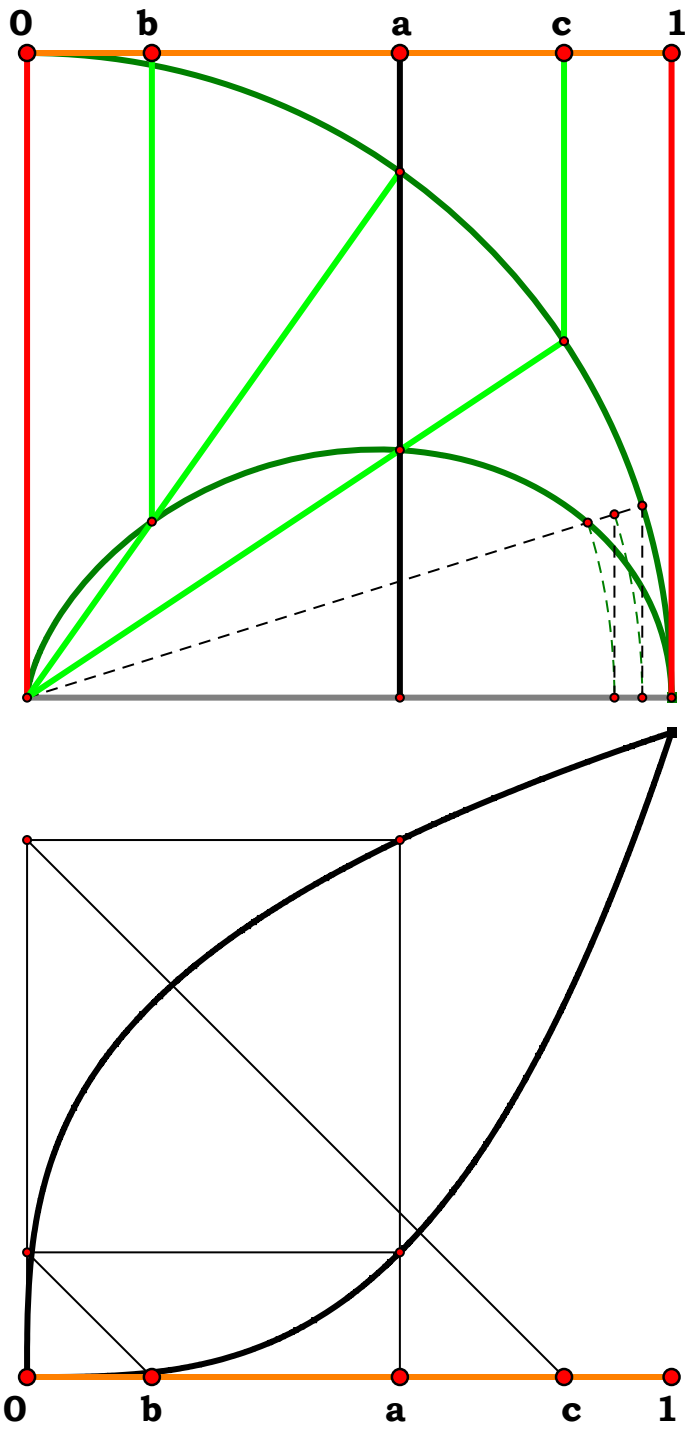
$a^{\frac{1}{3}} = 0.83324$

$a^3 - b = 0.00000$

$a^{\frac{1}{3}} - c = 0.00000$

$\frac{1}{a^3} - \frac{1}{b} = 0.00000$

$\frac{1}{a^{\frac{1}{3}}} - \frac{1}{c} = 0.00000$



# Powers E

$a = 0.64126$

$b = 0.41121$

$c = 0.80079$

$a^2 - b = 0.00000$

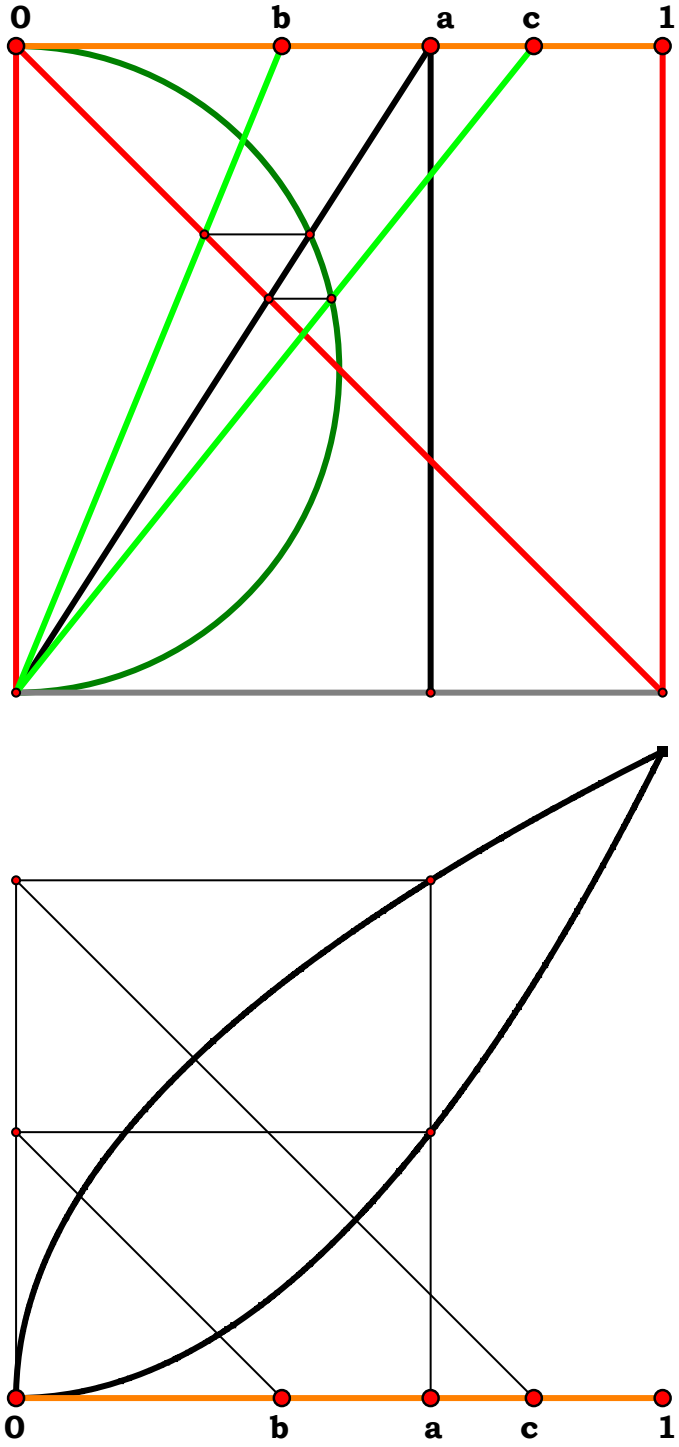
$\sqrt{a} - c = 0.00000$

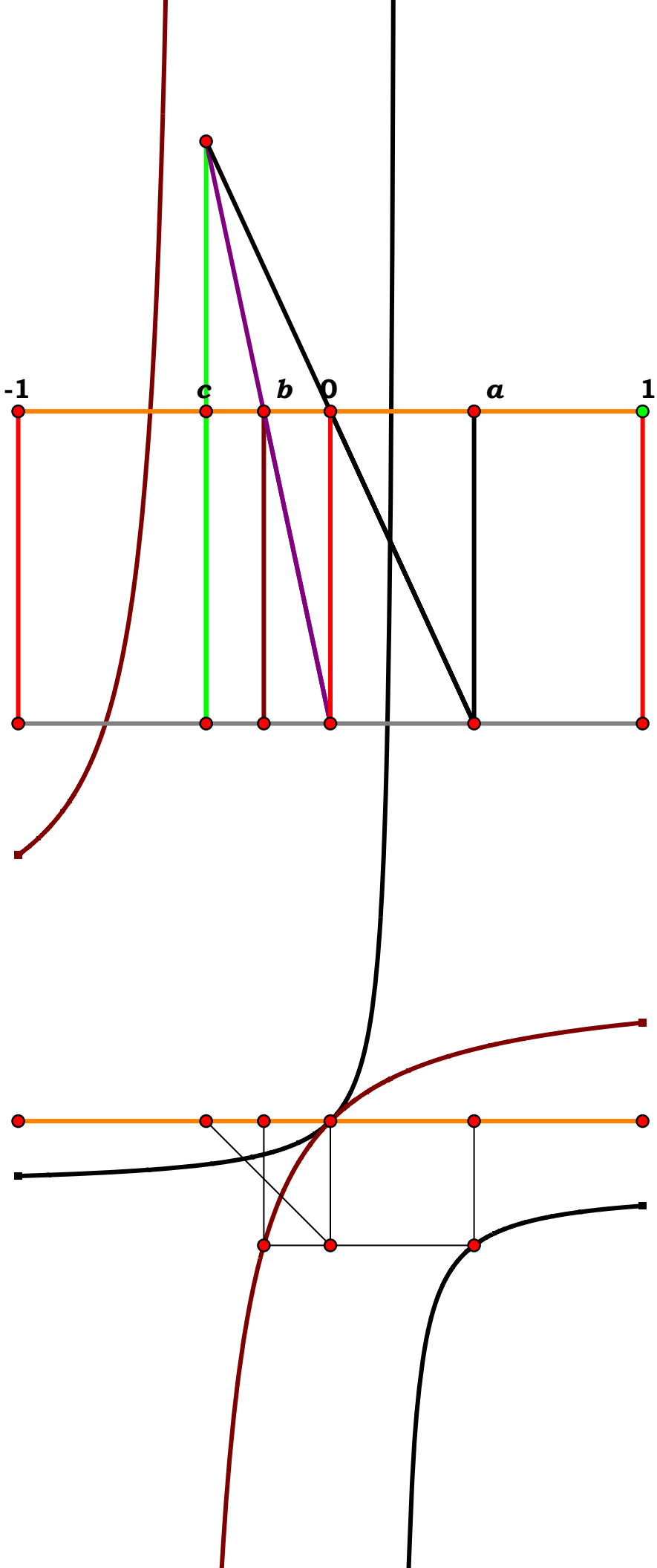
$\frac{1}{a} = 1.55944$

$\frac{1}{c} = 1.24877$

$\frac{1}{\sqrt{a}} - \frac{1}{c} = 0.00000$

$\frac{1}{b^{\frac{1}{2}}} - \frac{1}{a} = 0.00000$






# Addition

$a = 0.46020$

$b = -0.21344$

$c = -0.39807$

$\frac{1}{a} = 2.17297$

$\frac{1}{b} = -4.68509$

$\frac{1}{c} = -2.51212$

$c - \frac{a \cdot b}{a + b} = 0.00000$

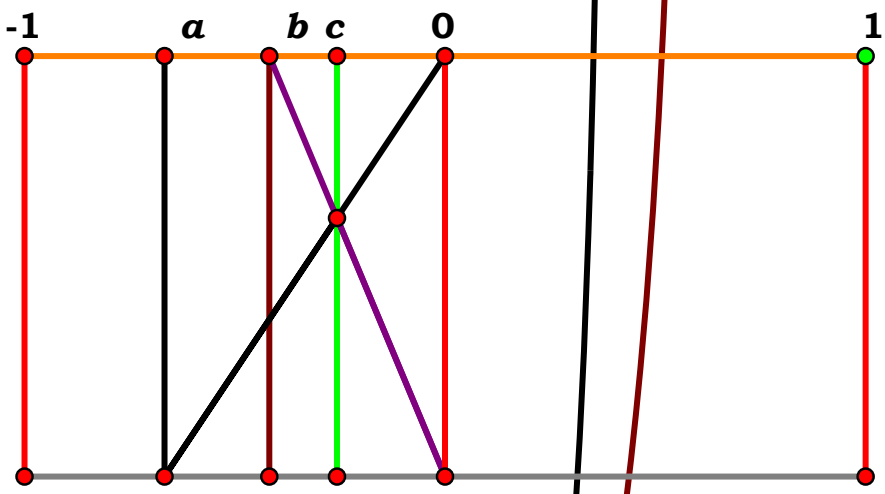
$b - \frac{a \cdot c}{a - c} = 0.00000$

$a - \frac{b \cdot c}{b - c} = 0.00000$

$1 - \frac{a \cdot b}{c \cdot (a + b)} = 0.00000$

$1 - \frac{a \cdot c}{b \cdot (a - c)} = 0.00000$

$1 - \frac{b \cdot c}{a \cdot (b - c)} = 0.00000$




# Addition

$a = -0.66706$

$b = -0.41797$

$c = -0.25696$

$\frac{1}{a} = -1.49911$

$\frac{1}{b} = -2.39253$

$\frac{1}{c} = -3.89164$

$c - \frac{a \cdot b}{a + b} = 0.00000$

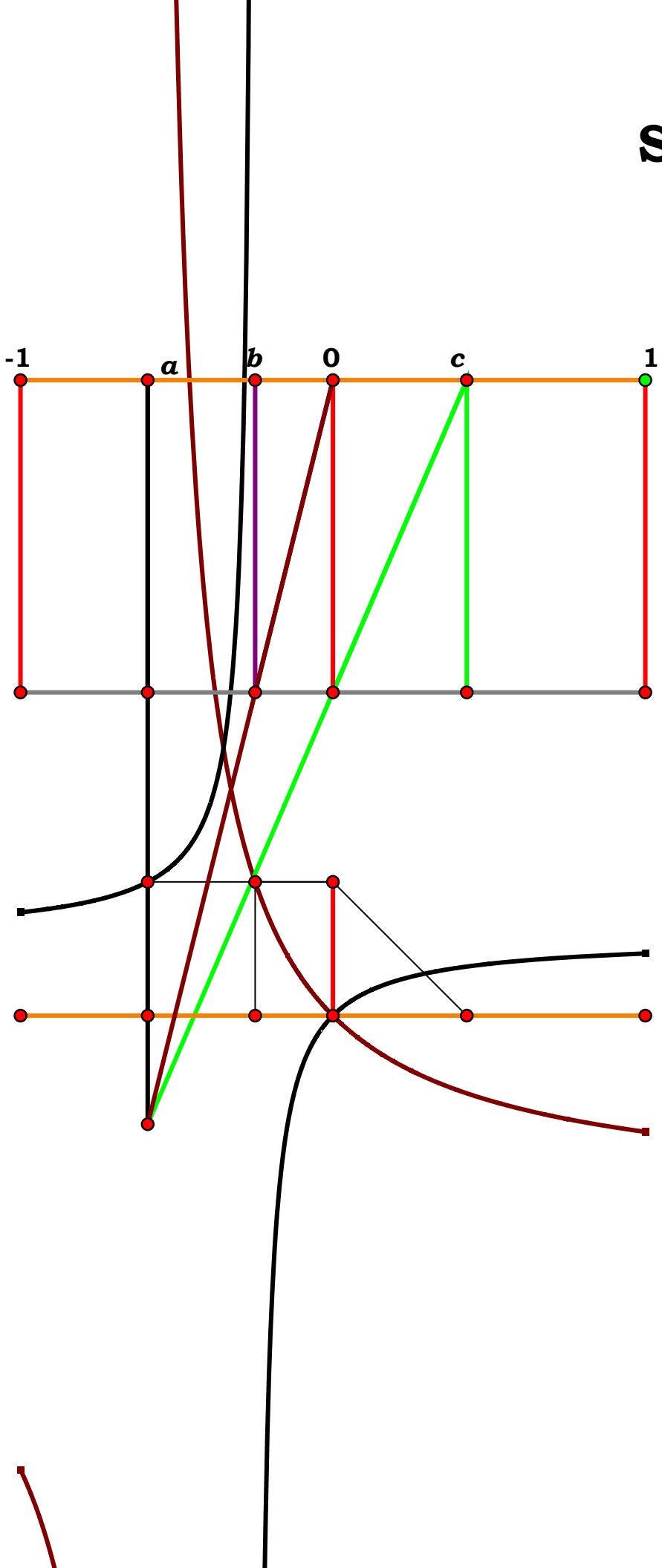
$b - \frac{a \cdot c}{a - c} = 0.00000$

$a - \frac{b \cdot c}{b - c} = 0.00000$

$1 - \frac{a \cdot b}{c \cdot (a + b)} = 0.00000$

$1 - \frac{a \cdot c}{b \cdot (a - c)} = 0.00000$

$1 - \frac{b \cdot c}{a \cdot (b - c)} = 0.00000$




# Subtraction

$a = -0.59264$

$b = -0.24868$

$c = 0.42846$

$\frac{1}{a} = -1.68737$

$\frac{1}{b} = -4.02131$

$\frac{1}{c} = 2.33393$

$\frac{1}{c} - \left(\frac{1}{a} - \frac{1}{b}\right) = 0.00000$

$\frac{1}{b} - \left(\frac{1}{a} - \frac{1}{c}\right) = 0.00000$

$\frac{1}{a} - \left(\frac{1}{b} + \frac{1}{c}\right) = 0.00000$

$\frac{1}{c} - \frac{b - a}{a \cdot b} = 0.00000$

$\frac{1}{b} - \frac{c - a}{a \cdot c} = 0.00000$

$\frac{1}{a} - \frac{b + c}{b \cdot c} = 0.00000$

$c - \frac{a \cdot b}{b - a} = 0.00000$

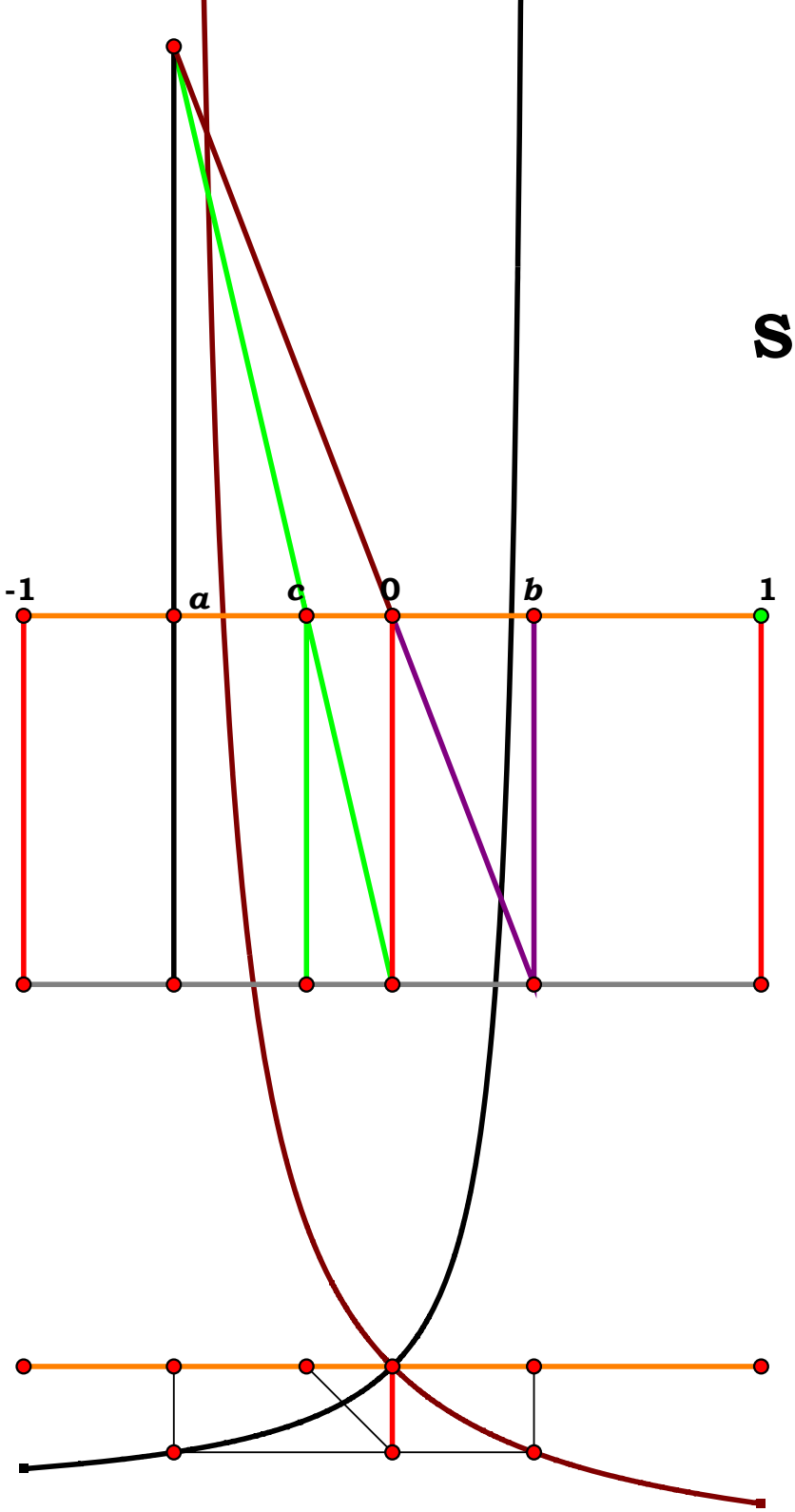
$b - \frac{a \cdot c}{c - a} = 0.00000$

$a - \frac{b \cdot c}{b + c} = 0.00000$

$1 - \frac{a \cdot b}{c \cdot (b - a)} = 0.00000$

$1 - \frac{a \cdot c}{b \cdot (c - a)} = 0.00000$

$1 - \frac{b \cdot c}{a \cdot (b + c)} = 0.00000$




# Subtraction

$a = -0.59264$

$b = 0.38392$

$c = -0.23299$

$\frac{1}{a} = -1.68737$

$\frac{1}{b} = 2.60469$

$\frac{1}{c} = -4.29206$

$\frac{1}{c} - \left(\frac{1}{a} - \frac{1}{b}\right) = 0.00000$

$\frac{1}{b} - \left(\frac{1}{a} - \frac{1}{c}\right) = 0.00000$

$\frac{1}{a} - \left(\frac{1}{b} + \frac{1}{c}\right) = 0.00000$

$\frac{1}{c} - \frac{b - a}{a \cdot b} = 0.00000$

$\frac{1}{b} - \frac{c - a}{a \cdot c} = 0.00000$

$\frac{1}{a} - \frac{b + c}{b \cdot c} = 0.00000$

$c - \frac{a \cdot b}{b - a} = 0.00000$

$b - \frac{a \cdot c}{c - a} = 0.00000$

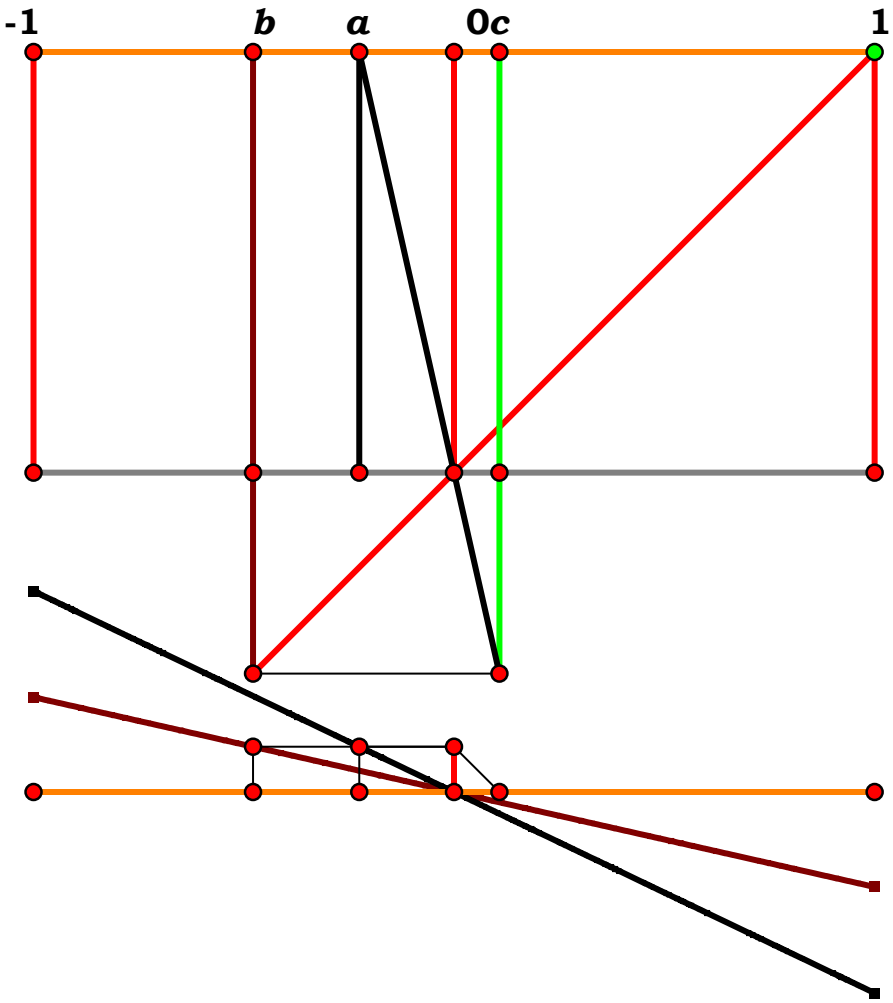
$a - \frac{b \cdot c}{b + c} = 0.00000$

$1 - \frac{a \cdot b}{c \cdot (b - a)} = 0.00000$

$1 - \frac{a \cdot c}{b \cdot (c - a)} = 0.00000$

$1 - \frac{b \cdot c}{a \cdot (b + c)} = 0.00000$

# Multiplication




$a = -0.22560$

$b = -0.47794$

$c = 0.10782$

$\frac{1}{a} = -4.43263$

$\frac{1}{b} = -2.09233$

$\frac{1}{c} = 9.27453$

$\frac{1}{c} - \frac{1}{a \cdot b} = 0.00000$

$\frac{1}{b} - \frac{a}{c} = 0.00000$

$\frac{1}{a} - \frac{b}{c} = 0.00000$

$c - a \cdot b = 0.00000$

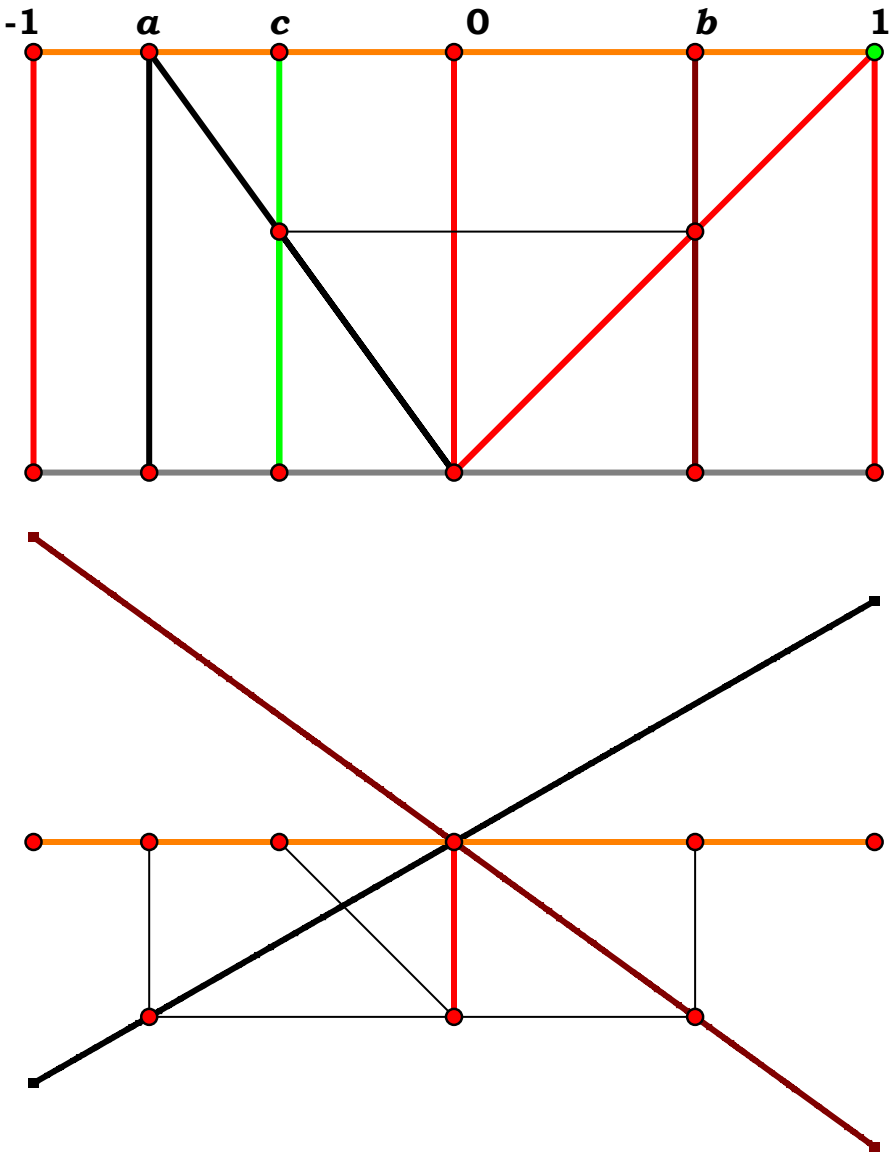
$b - \frac{c}{a} = 0.00000$

$a - \frac{c}{b} = 0.00000$

$1 - \frac{a \cdot b}{c} = 0.00000$

$1 - \frac{c}{a \cdot b} = 0.00000$

# Multiplication




$a = -0.72502$

$b = 0.57322$

$c = -0.41560$

$\frac{1}{a} = -1.37927$

$\frac{1}{b} = 1.74452$

$\frac{1}{c} = -2.40617$

$\frac{1}{c} - \frac{1}{a \cdot b} = 0.00000$

$\frac{1}{b} - \frac{a}{c} = 0.00000$

$\frac{1}{a} - \frac{b}{c} = 0.00000$

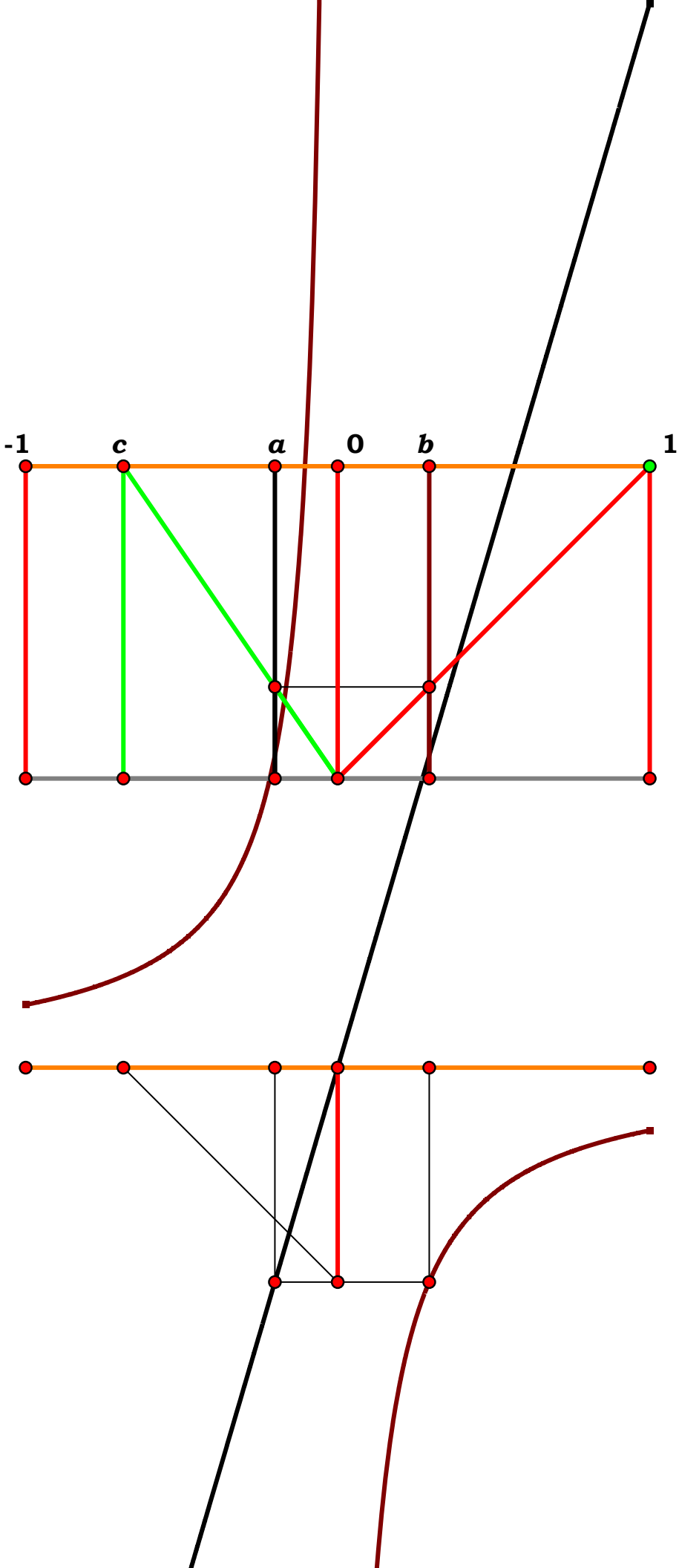
$c - a \cdot b = 0.00000$

$b - \frac{c}{a} = 0.00000$

$a - \frac{c}{b} = 0.00000$

$1 - \frac{a \cdot b}{c} = 0.00000$

$1 - \frac{c}{a \cdot b} = 0.00000$




# Division

$a = -0.20137$

$b = 0.29326$

$c = -0.68668$

$\frac{1}{a} = -4.96593$

$\frac{1}{b} = 3.40999$

$\frac{1}{c} = -1.45629$

$a - b \cdot c = 0.00000$

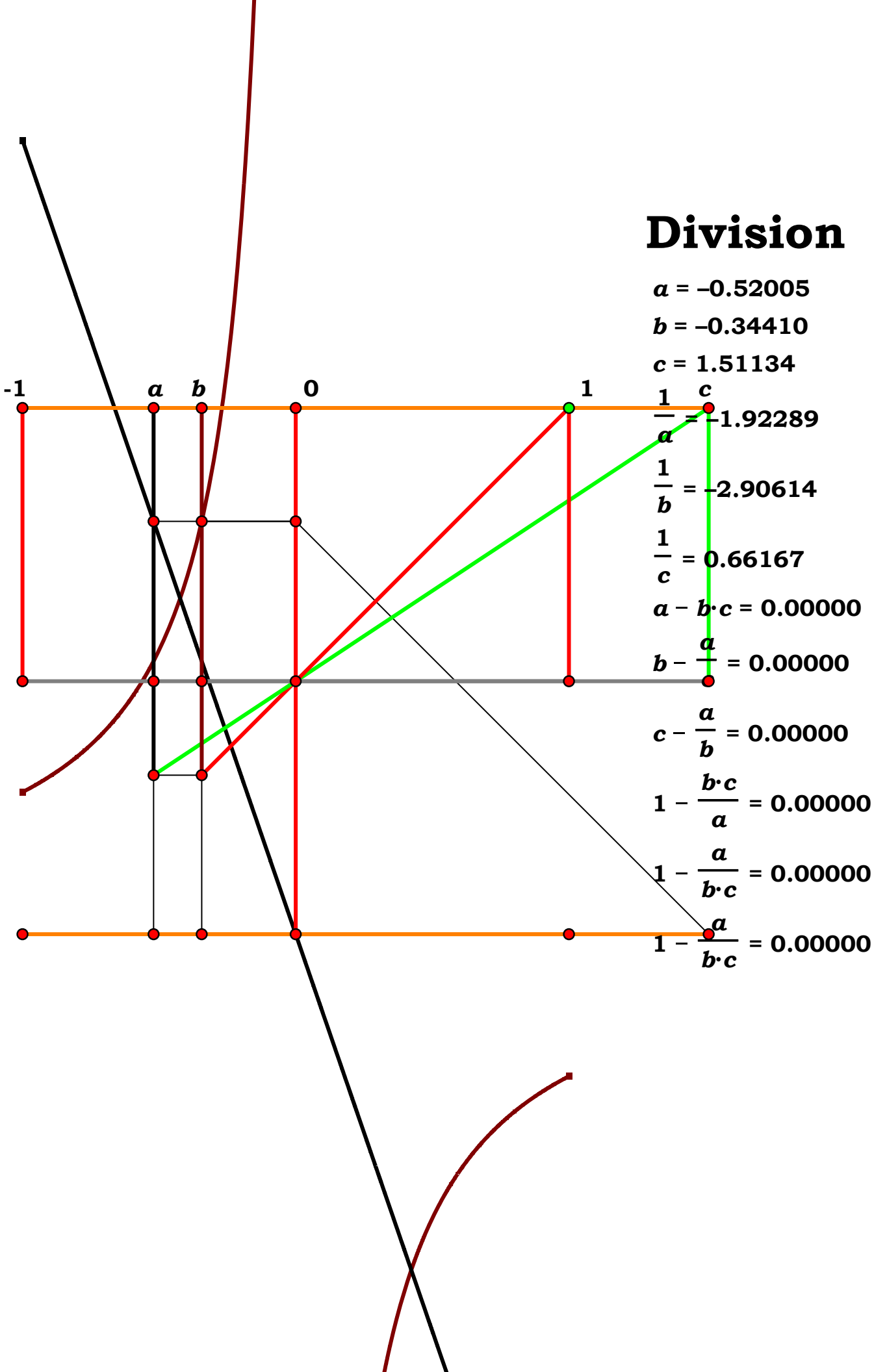
$b - \frac{a}{c} = 0.00000$

$c - \frac{a}{b} = 0.00000$

$1 - \frac{b \cdot c}{a} = 0.00000$

$1 - \frac{a}{b \cdot c} = 0.00000$

$1 - \frac{a}{b \cdot c} = 0.00000$




# Division

$a = -0.52005$

$b = -0.34410$

$c = 1.51134$

$\frac{1}{a} = -1.92289$

$\frac{1}{b} = -2.90614$

$\frac{1}{c} = 0.66167$

$a - b \cdot c = 0.00000$

$b - \frac{a}{c} = 0.00000$

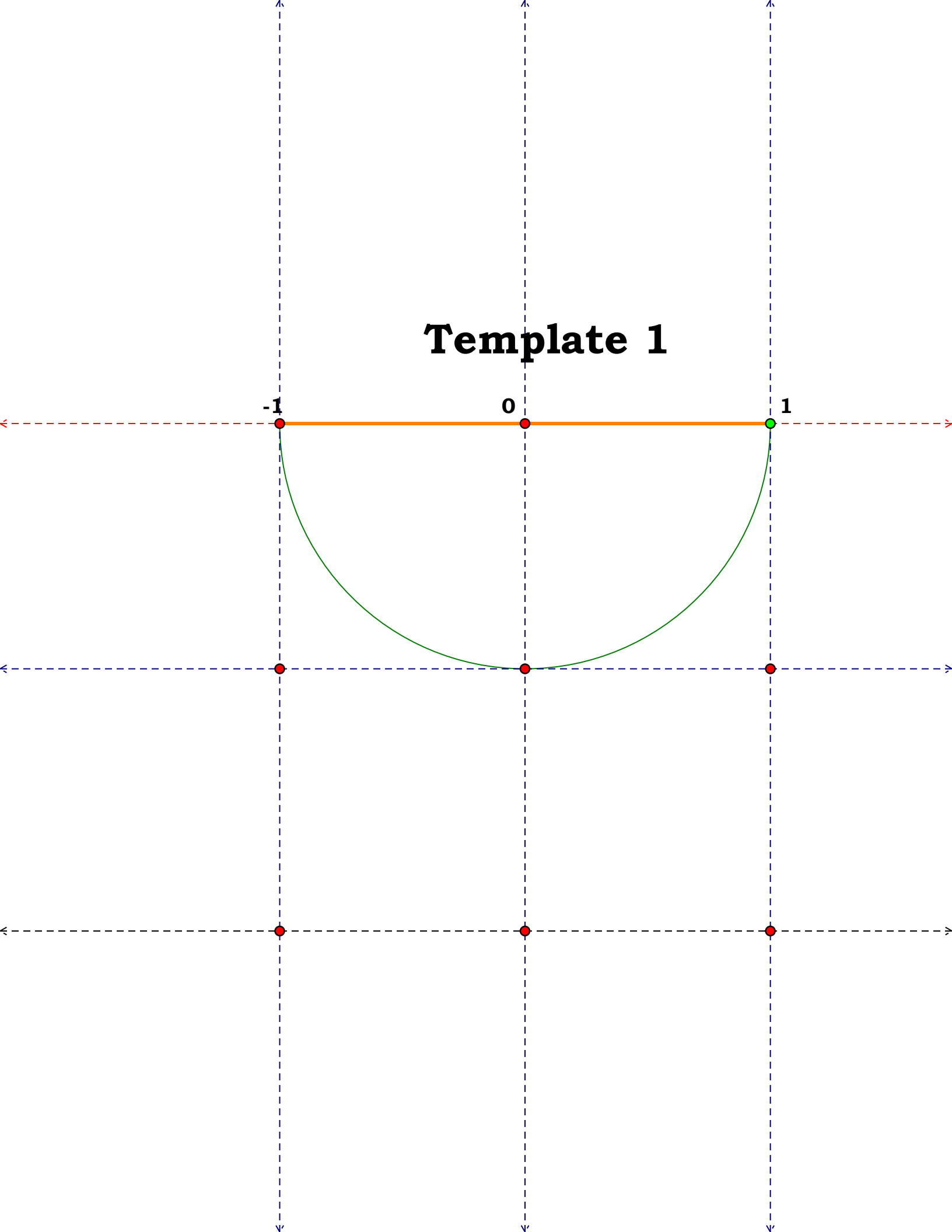
$c - \frac{a}{b} = 0.00000$

$1 - \frac{b \cdot c}{a} = 0.00000$

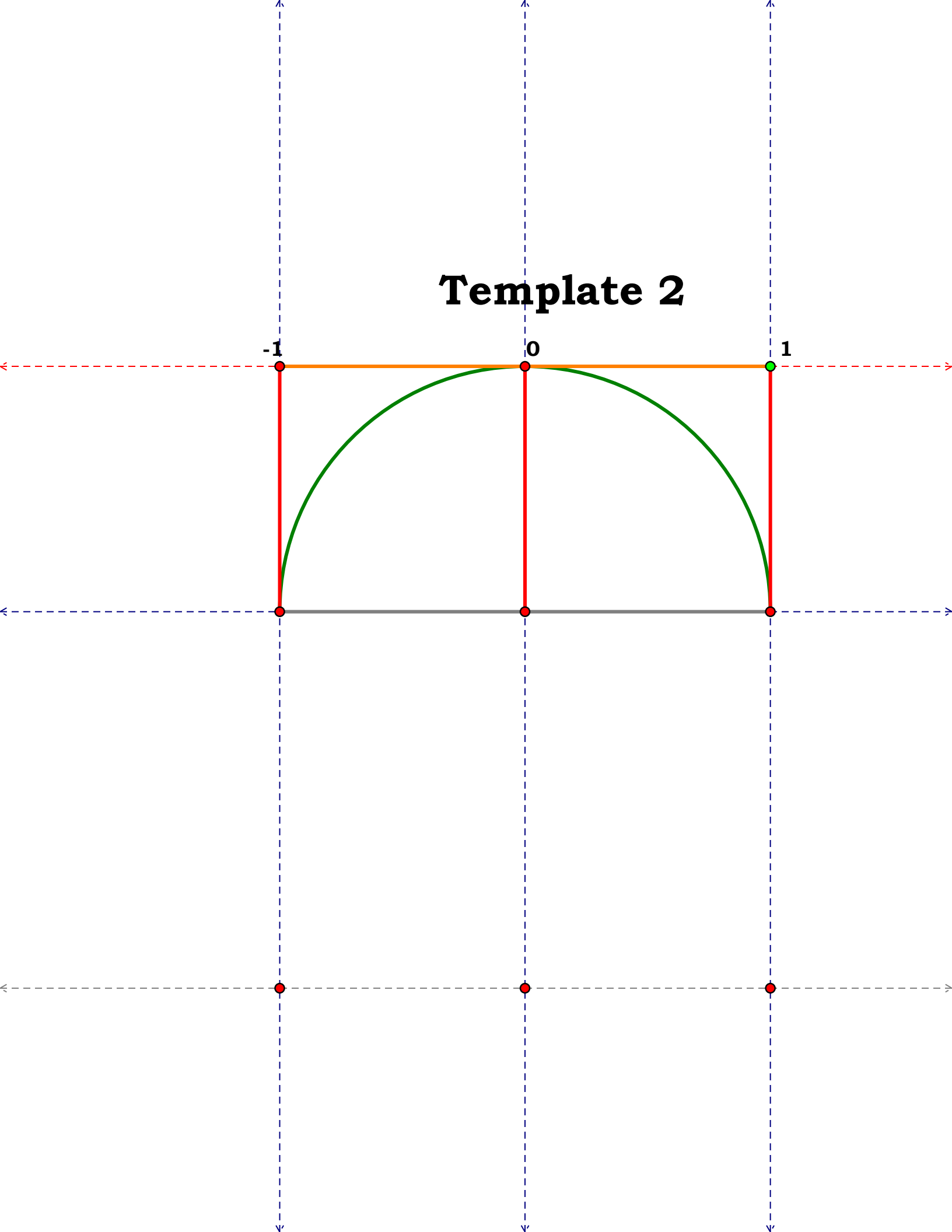
$1 - \frac{a}{b \cdot c} = 0.00000$

$1 - \frac{a}{b \cdot c} = 0.00000$

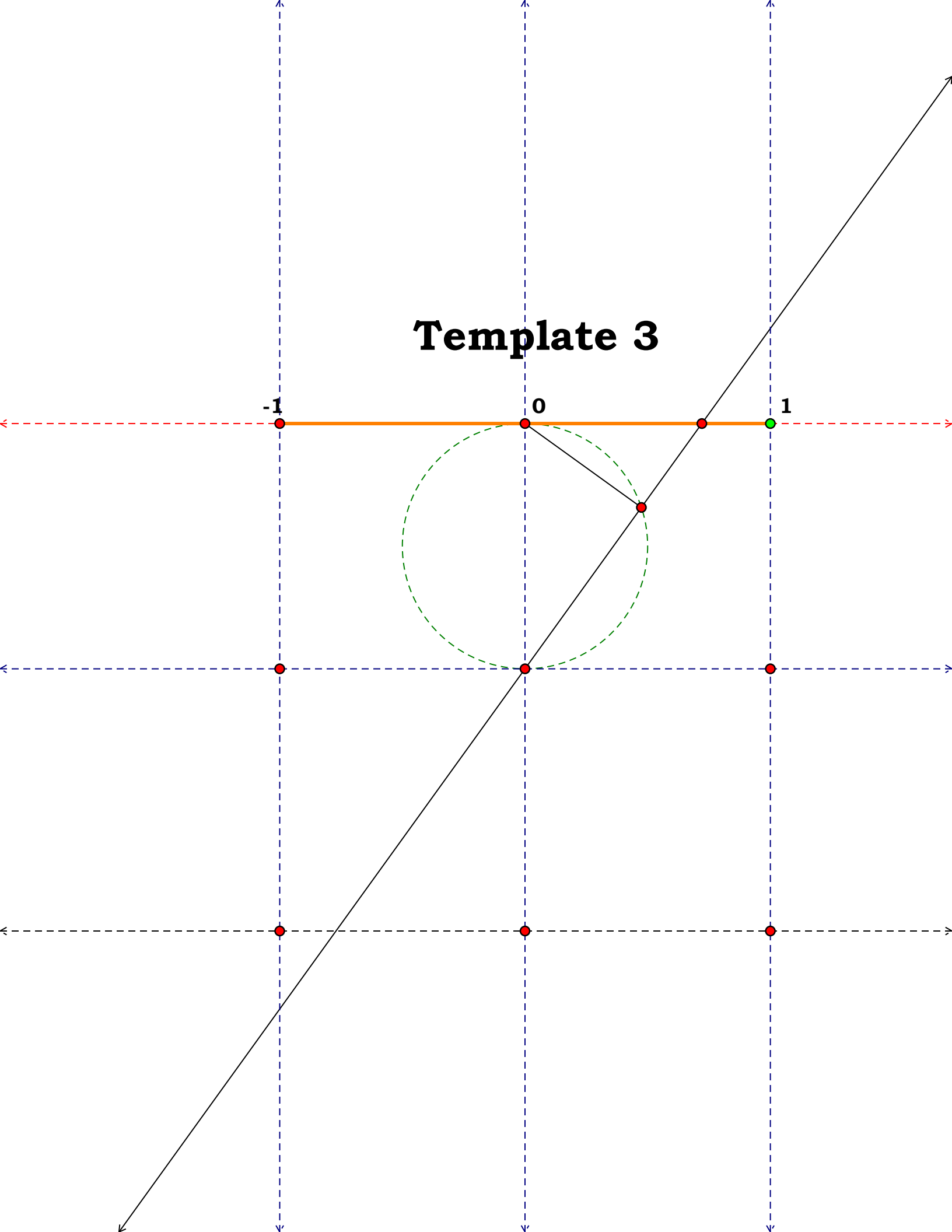
# Template 1



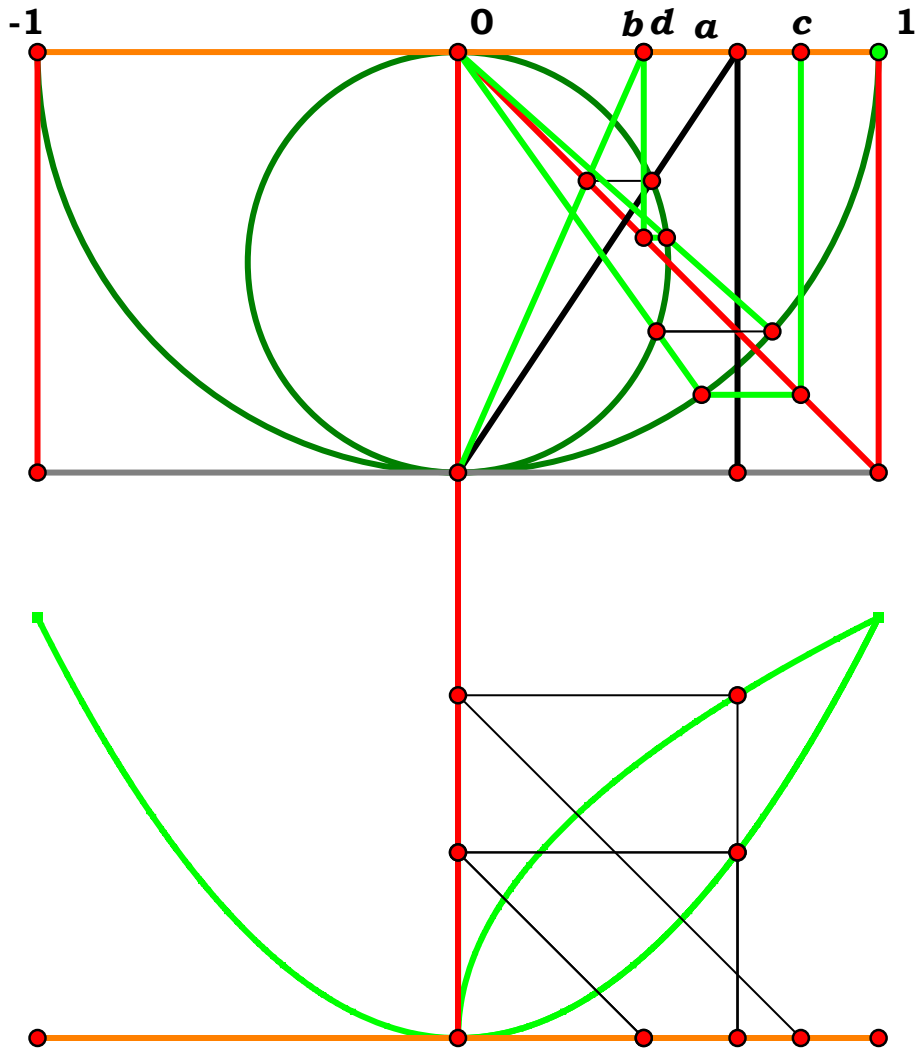
# Template 2



# Template 3



# Problem Child




$a = 0.66444$

$b = 0.44148$

$c = 0.81513$

$d = 0.44148$

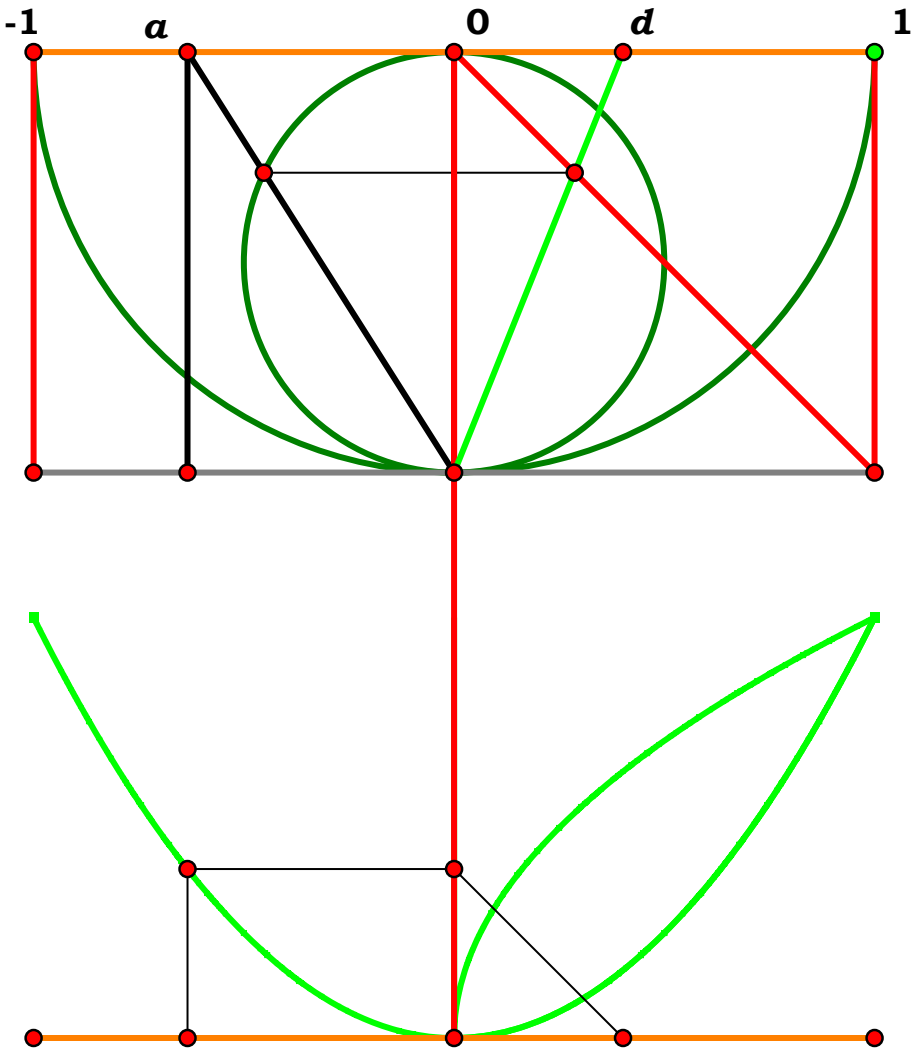
$a^2 - b = 0.00000$

$a^2 - d = 0.00000$

$\sqrt{a} - c = 0.00000$

**Fudging the figure ain't so pretty**

# Problem Child




$a = -0.63405$

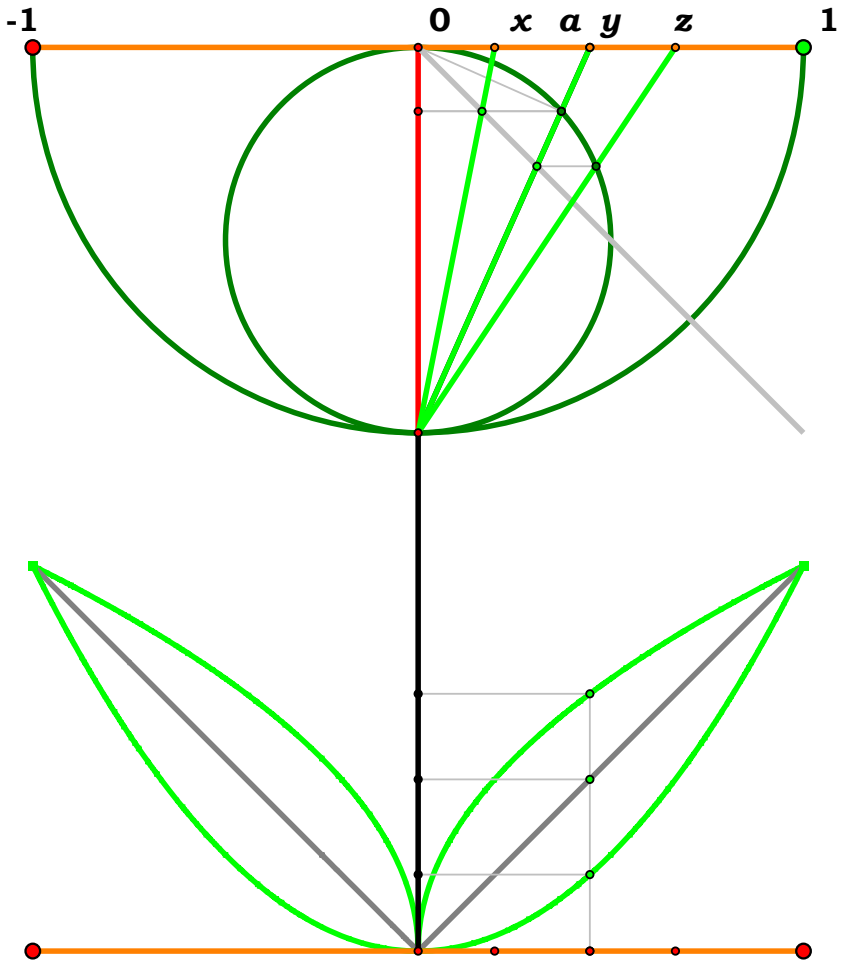
$d = 0.40202$

$a^2 - d = 0.00000$

**Fudging the figure ain't so pretty**

# Logical Operator

**The Flower of Life**




$a = 0.44565$

$x = 0.19860$

$y = 0.44565$

$z = 0.66757$

$$\frac{a}{\sqrt{x}} = 1.00000$$

$$\frac{a}{y} = 1.00000$$

$$\frac{a}{z^2} = 1.00000$$

$$\frac{\frac{a}{\sqrt{x}} + 1}{2} = 1.00000 \qquad \frac{a + \sqrt{x}}{2 \cdot \sqrt{x}} = 1.00000$$

$$\frac{1 - \frac{a}{\sqrt{x}}}{2} = 0.00000 \qquad \frac{\sqrt{x} - a}{2 \cdot \sqrt{x}} = 0.00000$$

$$\frac{\frac{a}{y} + 1}{2} = 1.00000 \qquad \frac{a + y}{2 \cdot y} = 1.00000$$

$$\frac{1 - \frac{a}{y}}{2} = 0.00000 \qquad \frac{y - a}{2 \cdot y} = 0.00000$$

$$\frac{\frac{a}{z^2} + 1}{2} = 1.00000 \qquad \frac{a + z^2}{2 \cdot z^2} = 1.00000$$

$$\frac{1 - \frac{a}{z^2}}{2} = 0.00000 \qquad \frac{z^2 - a}{2 \cdot z^2} = 0.00000$$

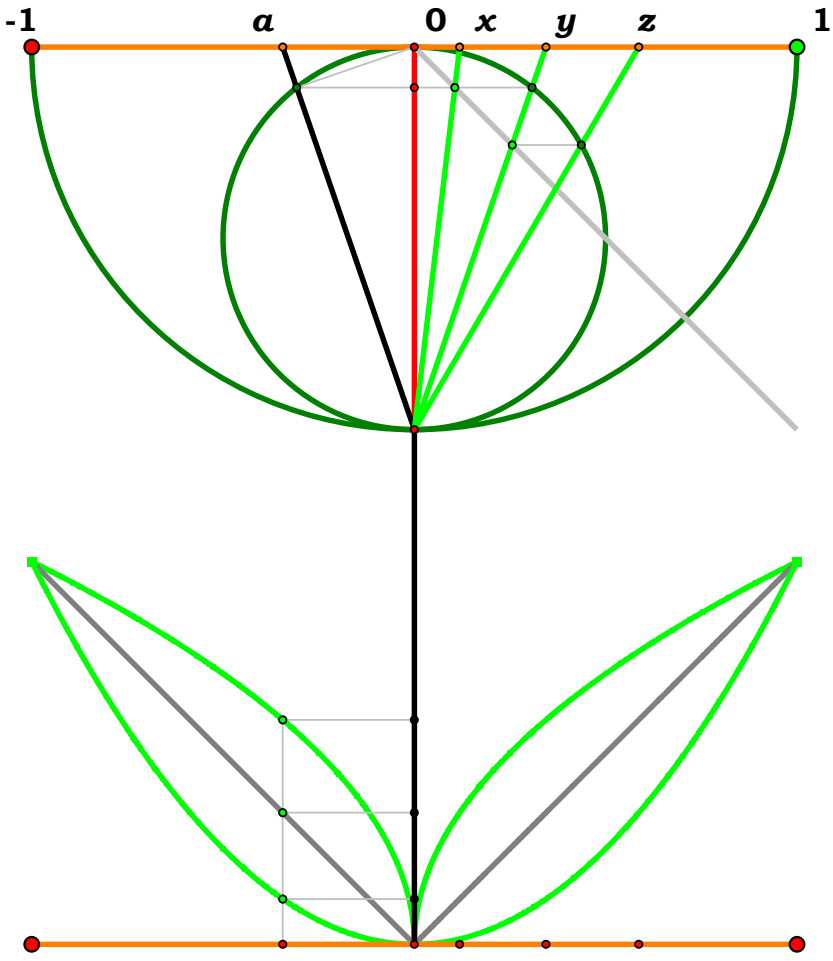
**Correlatives**

$$\frac{a}{y} = 1.00000$$ **Left, right; Up, down; Cold, hot; Male, female; Good, evil, etc.**

$$\frac{a + y}{2 \cdot y} = 1.00000$$ **Assertion, denial, Yes, no, Noun, verb; etc.**

# Logical Operator

**The Flower of Life**




$a = -0.34391$

$x = 0.11827$

$y = 0.34391$

$z = 0.58644$

$\frac{a}{\sqrt{x}} = -1.00000$

$\frac{a}{y} = -1.00000$

$\frac{a}{z^2} = -1.00000$

$\frac{\frac{a}{\sqrt{x}} + 1}{2} = 0.00000$ $\quad \frac{a + \sqrt{x}}{2 \cdot \sqrt{x}} = 0.00000$

$\frac{1 - \frac{a}{\sqrt{x}}}{2} = 1.00000$ $\quad \frac{\sqrt{x} - a}{2 \cdot \sqrt{x}} = 1.00000$

$\frac{\frac{a}{y} + 1}{2} = 0.00000$ $\quad \frac{a + y}{2 \cdot y} = 0.00000$

$\frac{1 - \frac{a}{y}}{2} = 1.00000$ $\quad \frac{y - a}{2 \cdot y} = 1.00000$

$\frac{\frac{a}{z^2} + 1}{2} = 0.00000$ $\quad \frac{a + z^2}{2 \cdot z^2} = 0.00000$

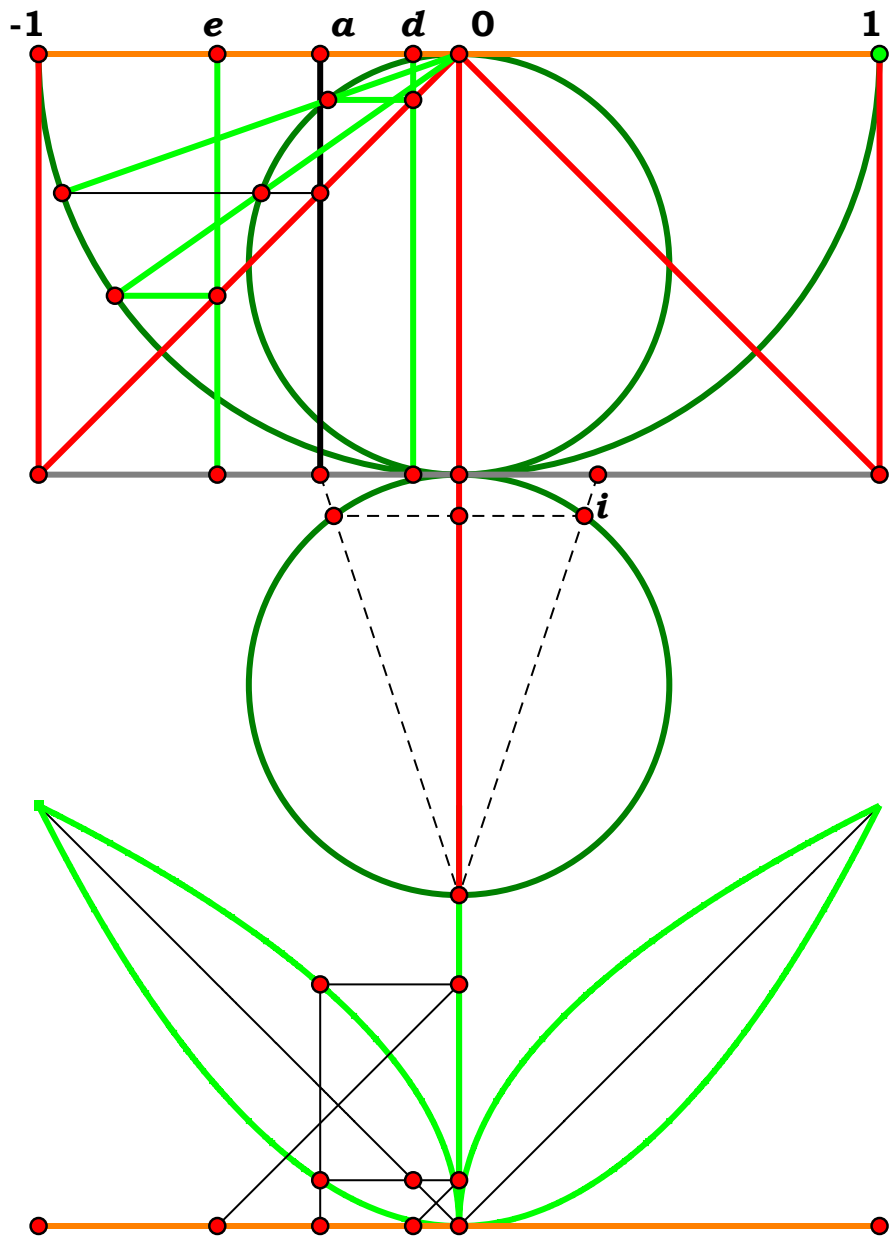
$\frac{1 - \frac{a}{z^2}}{2} = 1.00000$ $\quad \frac{z^2 - a}{2 \cdot z^2} = 1.00000$

**Correlatives**

$\frac{a}{y} = -1.00000$ **Left, right; Up, down; Cold, hot; Male, female; Good, evil, etc.**

$\frac{a + y}{2 \cdot y} = 0.00000$ **Assertion, denial, Yes, no, Noun, verb; etc.**

# Powers A




$a = -0.33035$

$d = -0.10913$

$e = -0.57476$

$i = 0.33035$

$\frac{a}{i} = -1.00000$

$\frac{\frac{a}{i} + 1}{2} = 0.00000$

$\frac{1 - \frac{a}{i}}{2} = 1.00000$

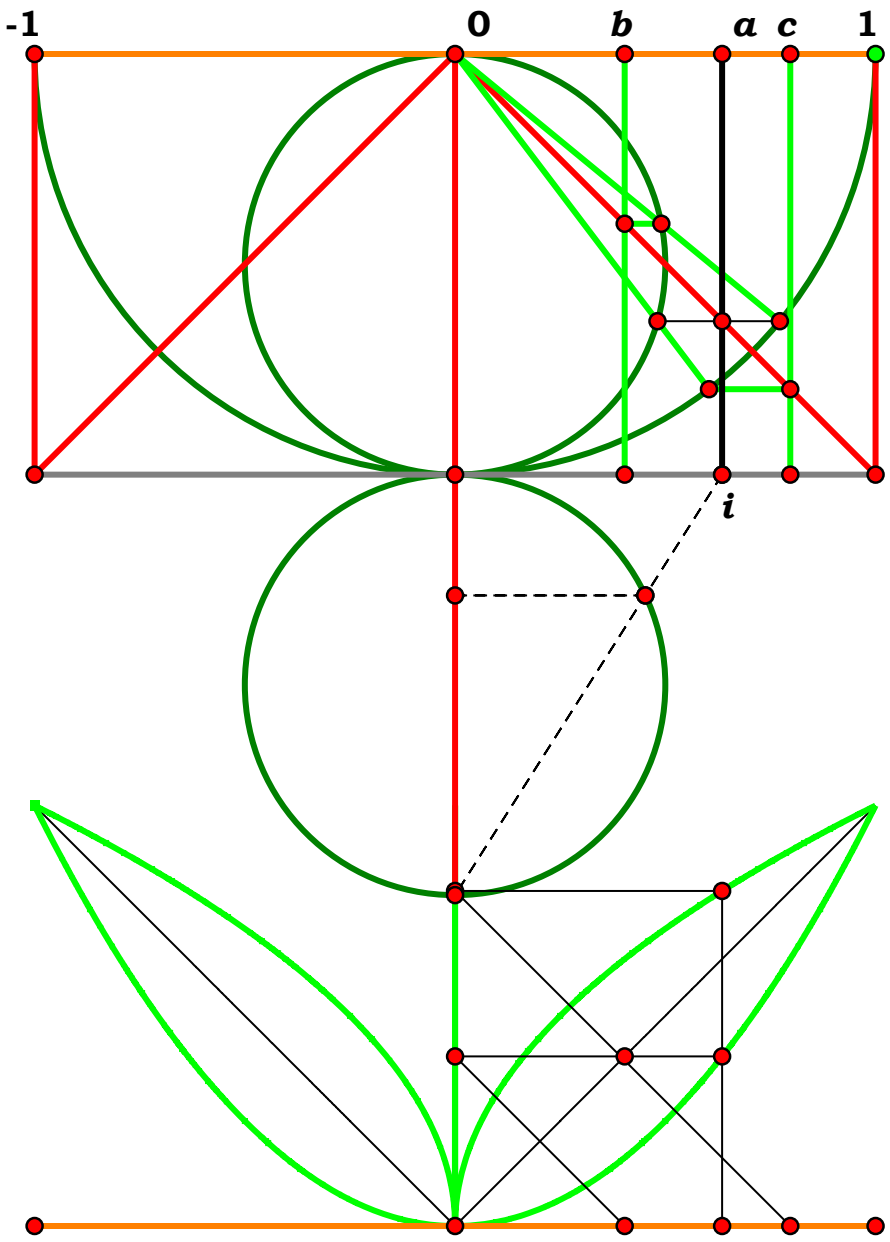
$i \cdot \sqrt{i \cdot a} = -0.57476$

$\left(i \cdot \sqrt{i \cdot a}\right) - e = 0.00000$

$i \cdot a^2 - d = 0.00000$

$i = -1.00000$

# Powers A




$a = 0.63520$

$b = 0.40347$

$c = 0.79699$

$i = 0.63520$

$a^2 - b = 0.00000$

$\sqrt{a} - c = 0.00000$

$\frac{a}{i} = 1.00000$

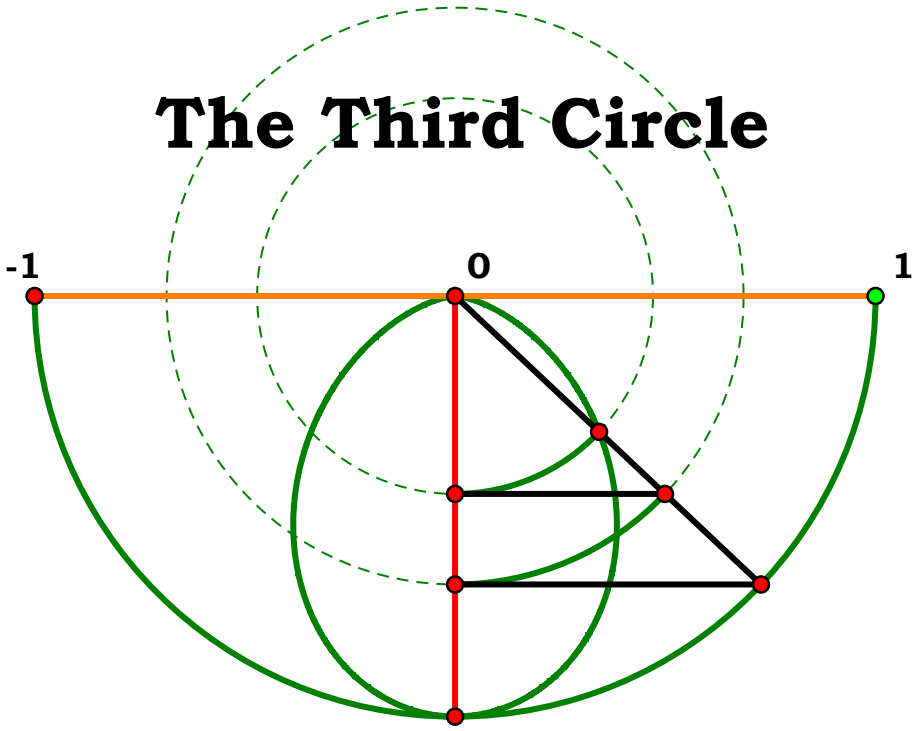
$\frac{\frac{a}{i} + 1}{2} = 1.00000$

$\frac{1 - \frac{a}{i}}{2} = 0.00000$

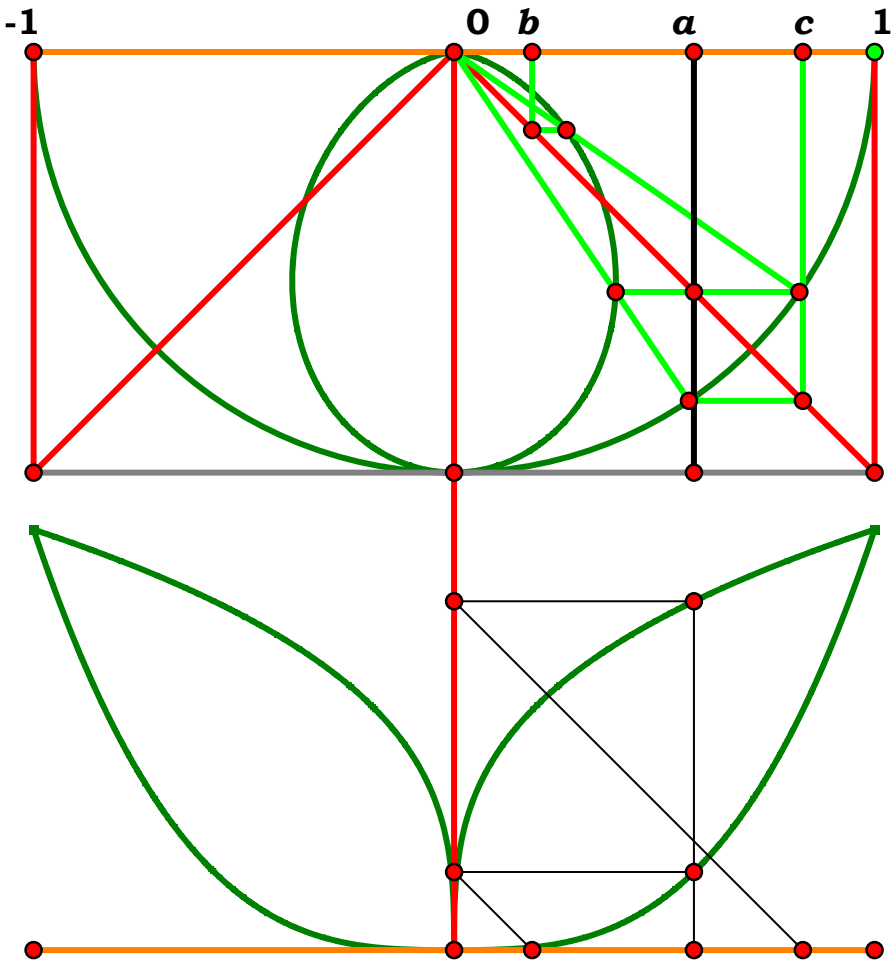
$i \cdot \sqrt{i \cdot a} = 0.79699$

$i = 1.00000$

# The Third Circle



# Power B




$a = 0.57044$

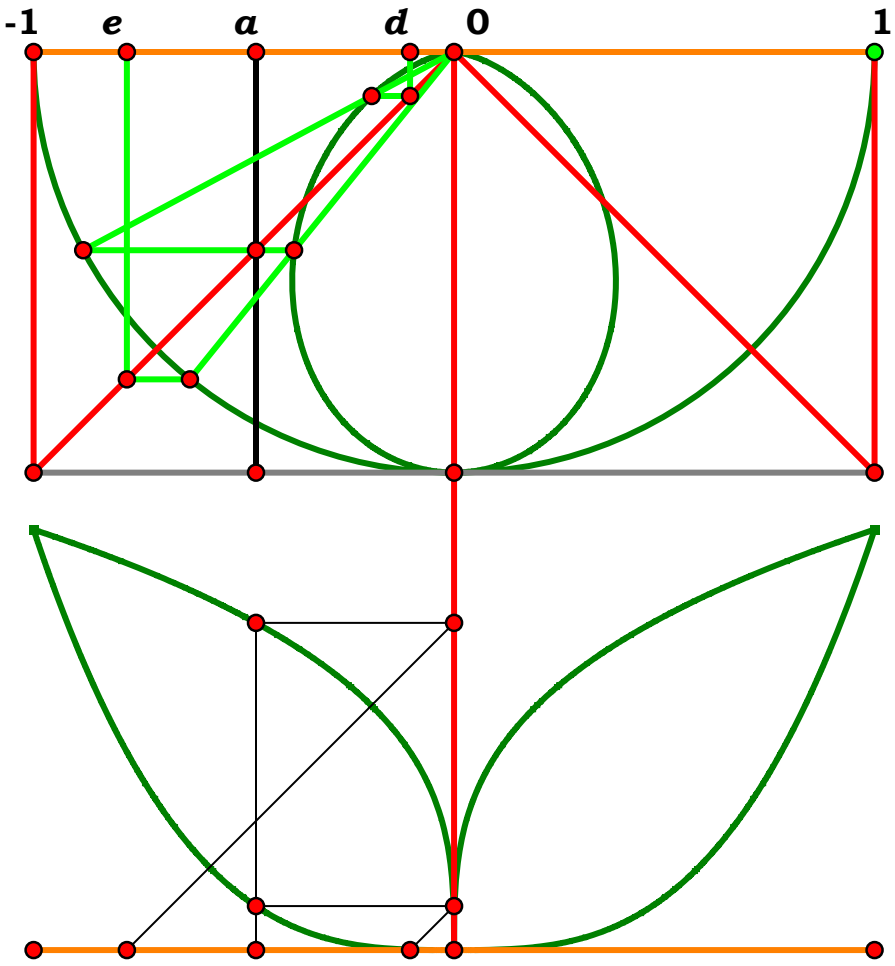
$b = 0.18562$

$c = 0.82935$

$a^3 - b = 0.00000$

$a^{\frac{1}{3}} - c = 0.00000$

# Power B




$a = -0.47121$

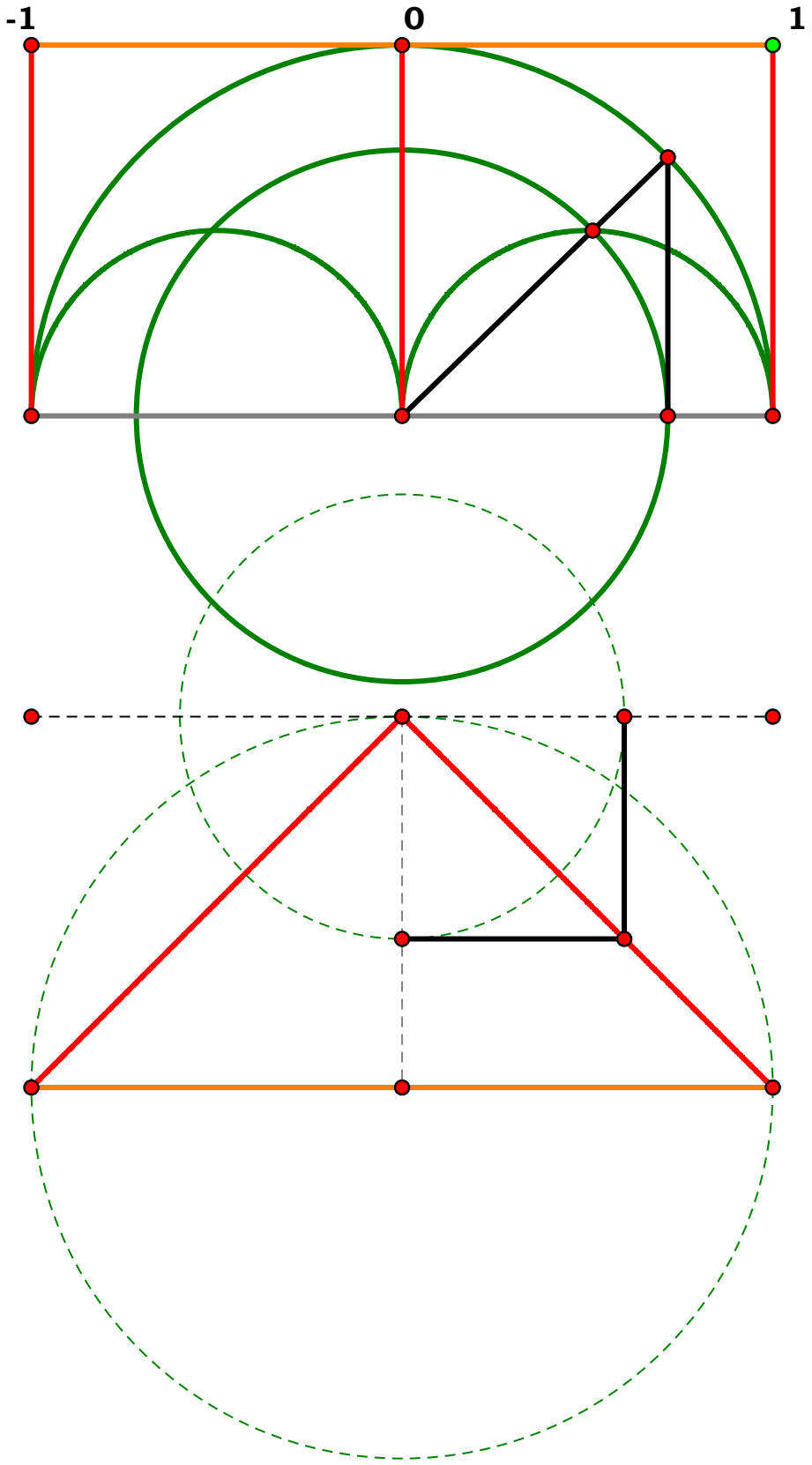
$d = -0.10462$

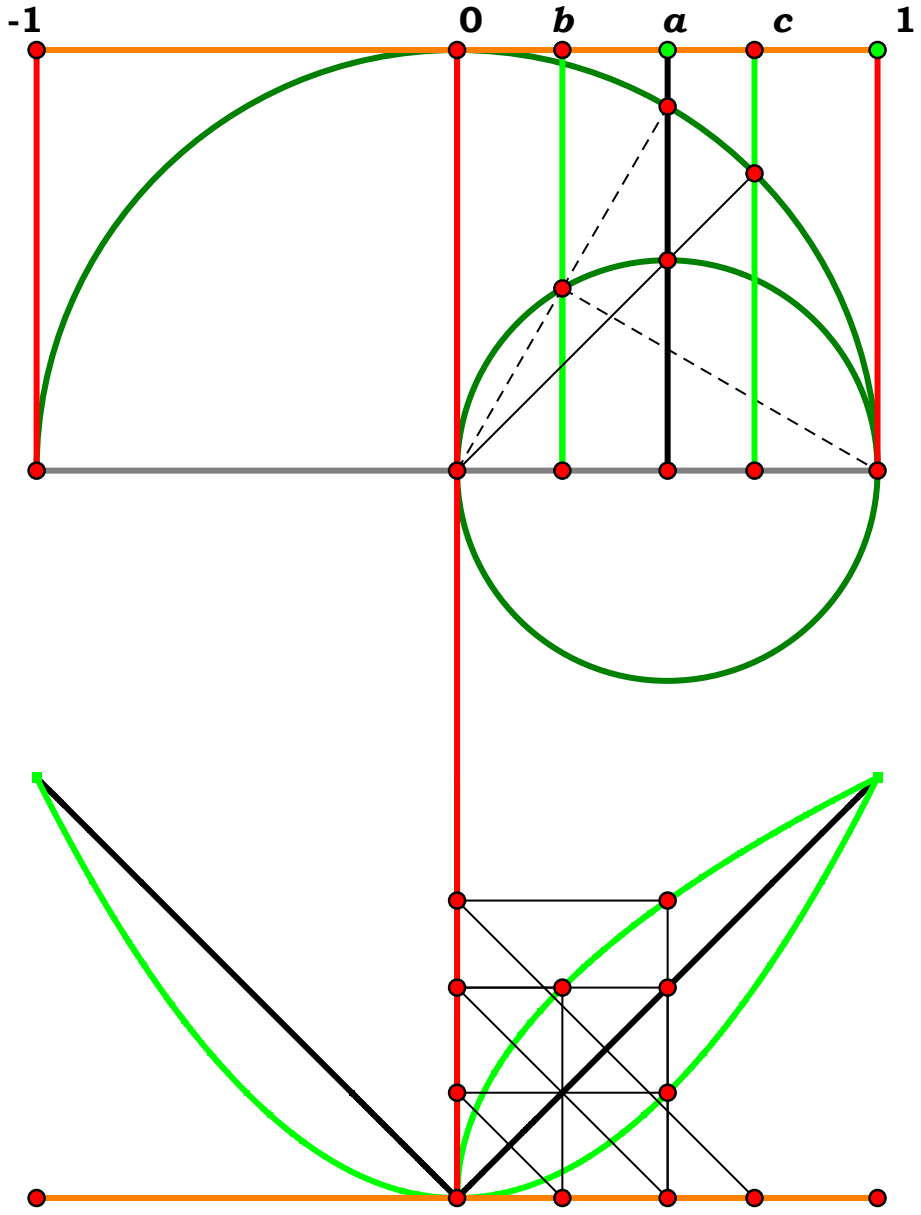
$e = -0.77816$

$a^3 - d = 0.00000$

$a^{\frac{1}{3}} - e = 0.00000$

# Two from One






# Power C

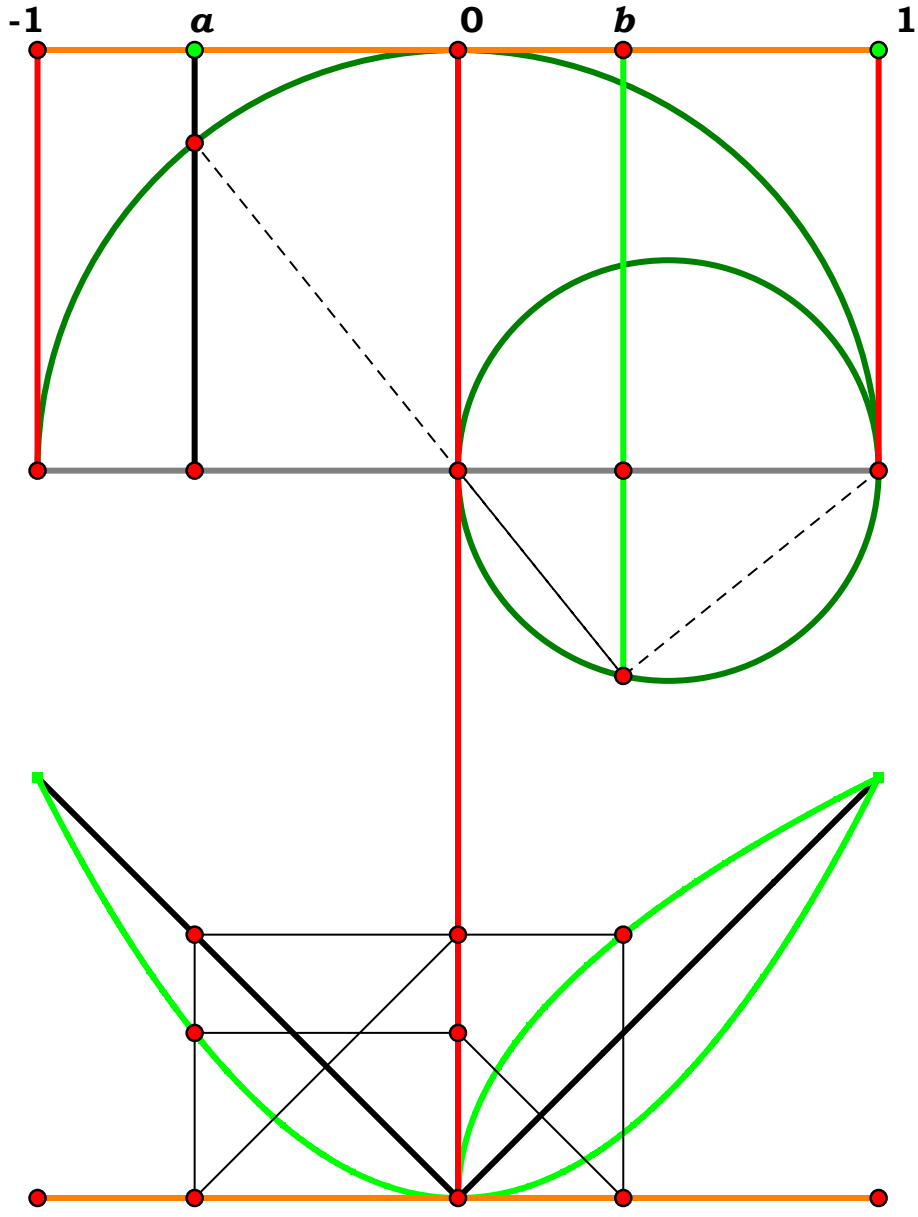
$a = 0.50058$

$b = 0.25058$

$c = 0.70751$

$a^2 - b = 0.00000$

$\sqrt{a} - c = 0.00000$



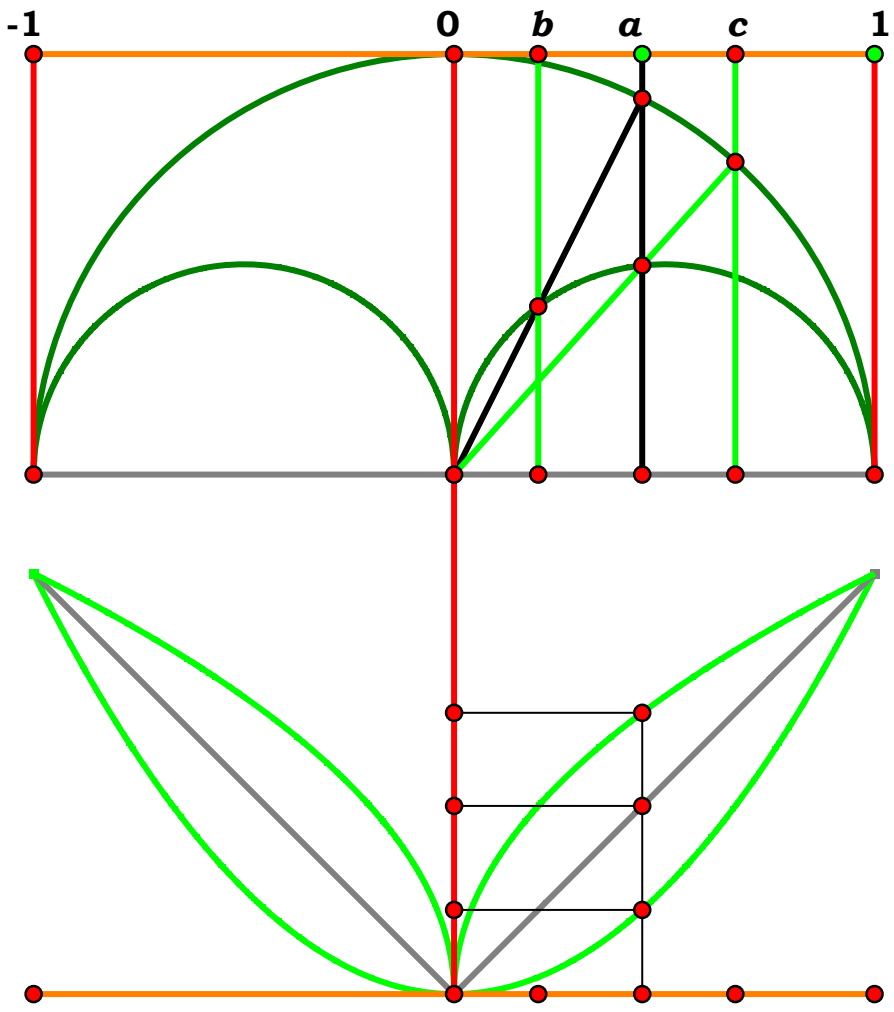

# Power C

$a$ = –0.62668

$b$ = 0.39273

$a^2 - b$ = 0.00000

# Dual Coordinates




$a = 0.44738$

$b = 0.20015$

$c = 0.66886$

$a^2 - b = 0.00000$

$a^{\frac{1}{2}} - c = 0.00000$

$01 = 5.56271$ cm

$0b = 1.11337$ cm

$0a = 2.48864$ cm

$0c = 3.72070$ cm

$\frac{01}{01} = 1.00000$

$\frac{0b}{01} = 0.20015$

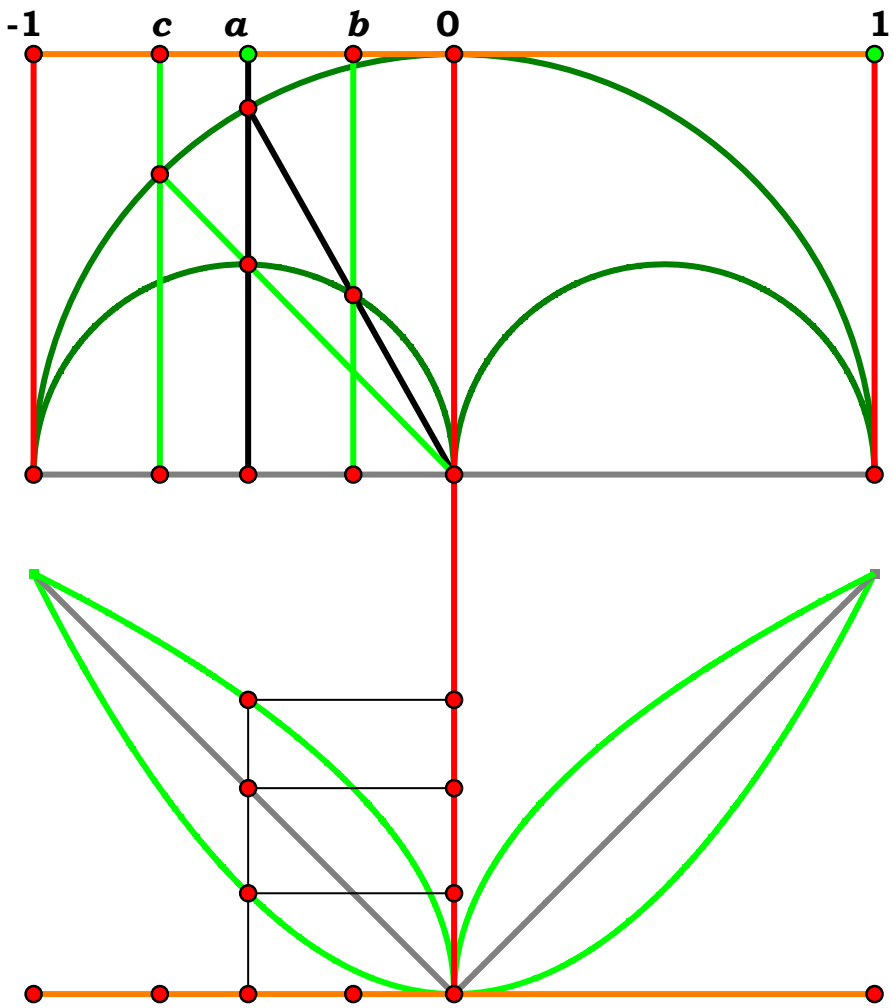
$\frac{0a}{01} = 0.44738$

$\frac{0c}{01} = 0.66886$

$\left(\frac{0a}{01}\right)^2 - \frac{0b}{01} = 0.00000$

$\left(\frac{0a}{01}\right)^{\frac{1}{2}} - \frac{0c}{01} = 0.00000$

# Dual Coordinates




$a = -0.48963$

$b = -0.23973$

$c = -0.69973$

$a^2 - b = 0.47947$

$a^{\frac{1}{2}} - c$ = undefined

01 = 5.56271 cm

0$b$ = 1.33357 cm

0$a$ = 2.72365 cm

0$c$ = 3.89241 cm

$\frac{01}{01} = 1.00000$

$\frac{0b}{01} = 0.23973$

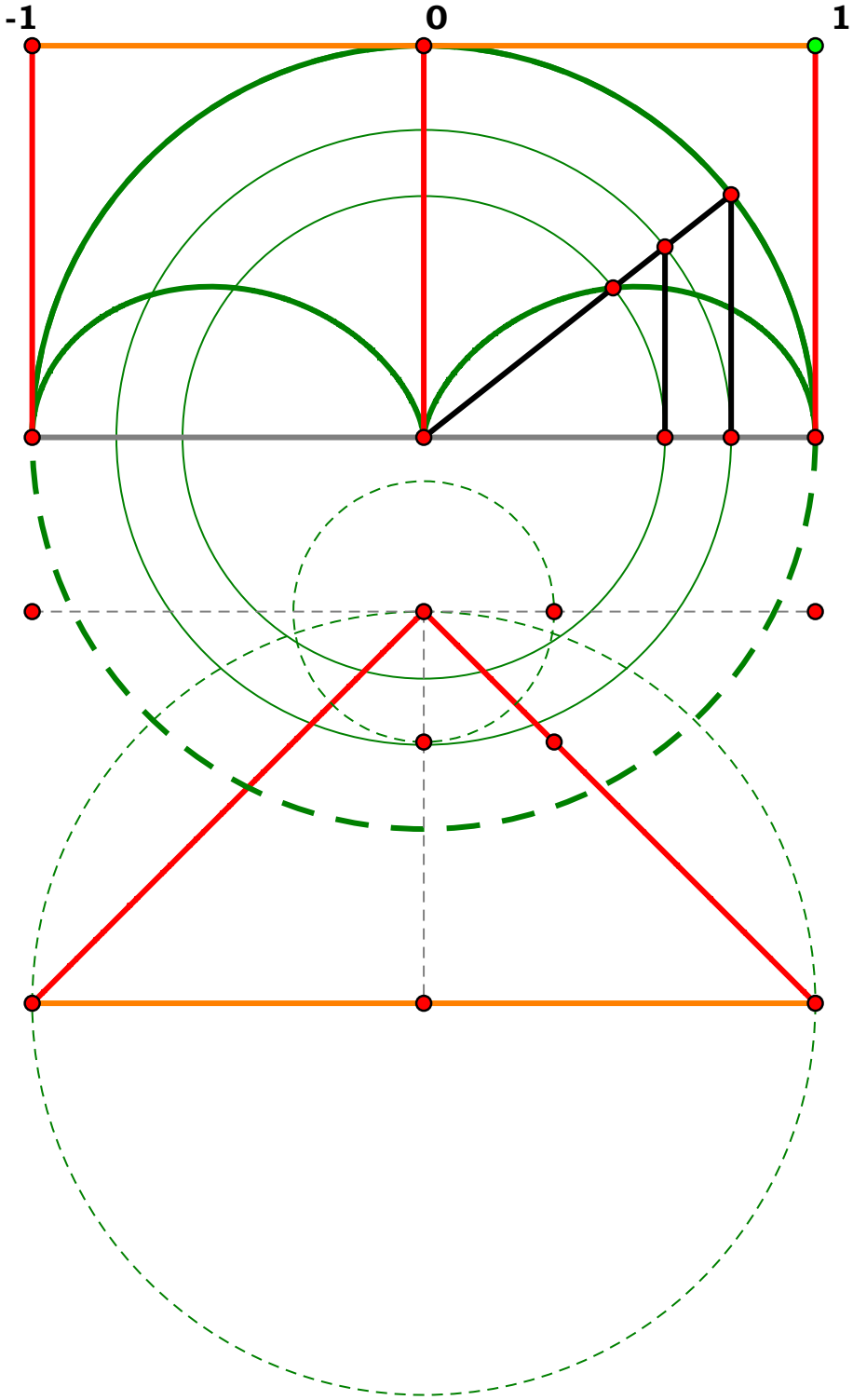
$\frac{0a}{01} = 0.48963$

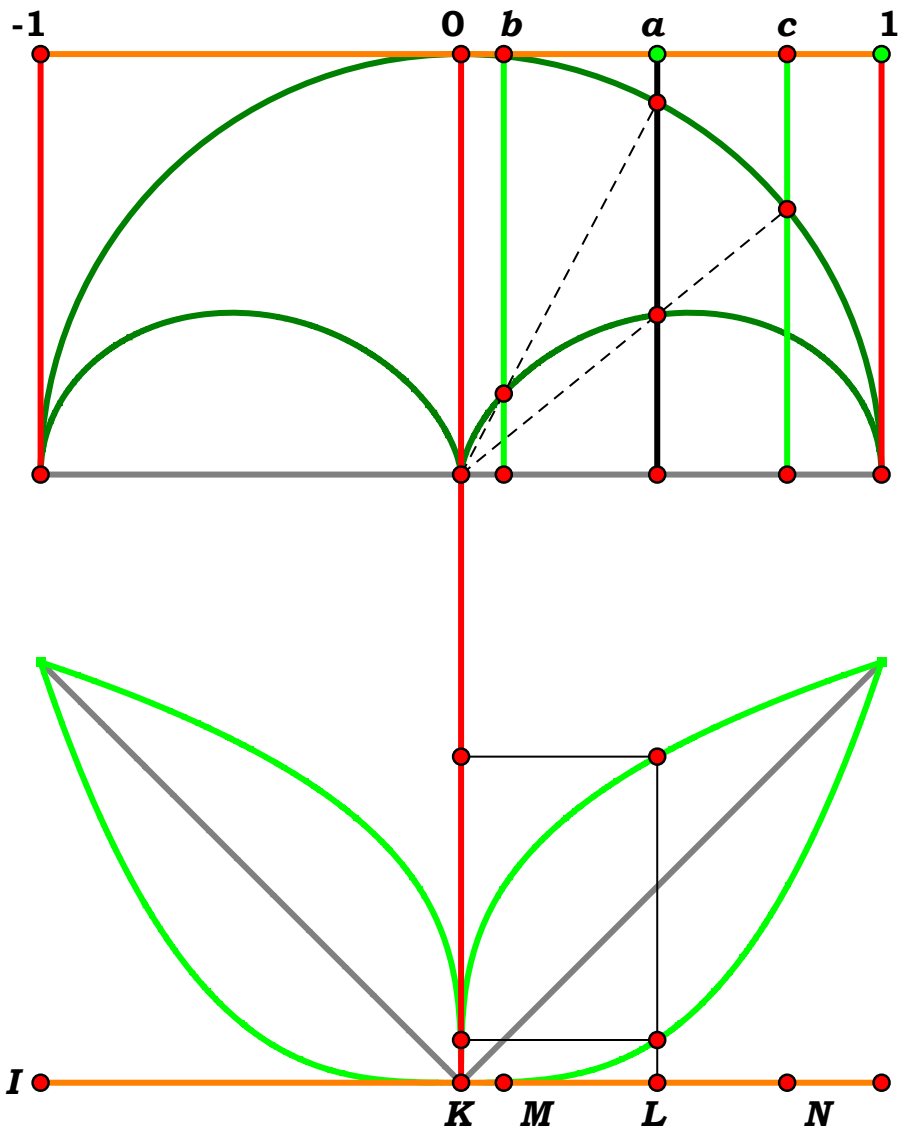
$\frac{0c}{01} = 0.69973$

$\left(\frac{0a}{01}\right)^2 - \frac{0b}{01} = 0.00000$

$\left(\frac{0a}{01}\right)^{\frac{1}{2}} - \frac{0c}{01} = 0.00000$

# Two from One






# Power D

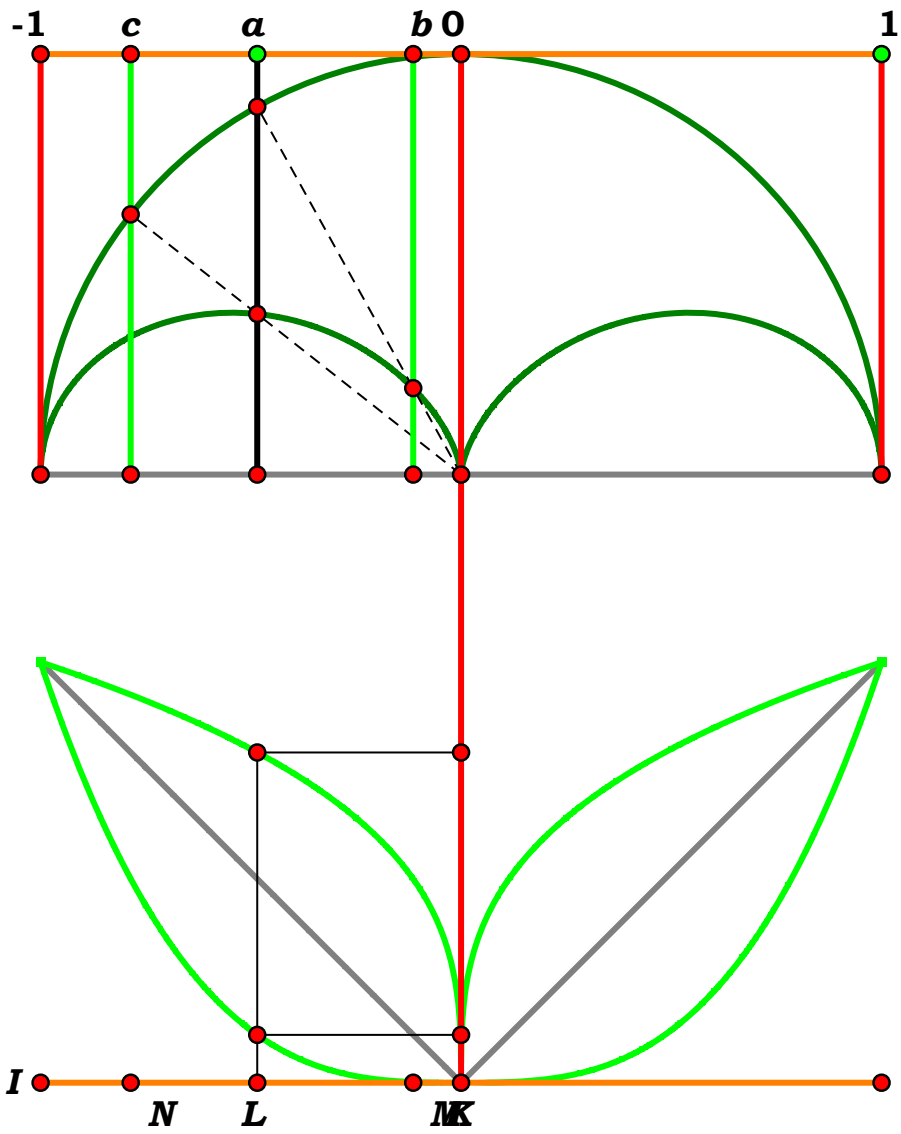
$a = 0.46649$

$b = 0.10152$

$c = 0.77556$

$a^3 - b = 0.00000$

$a^{\frac{1}{3}} - c = 0.00000$




# Power D

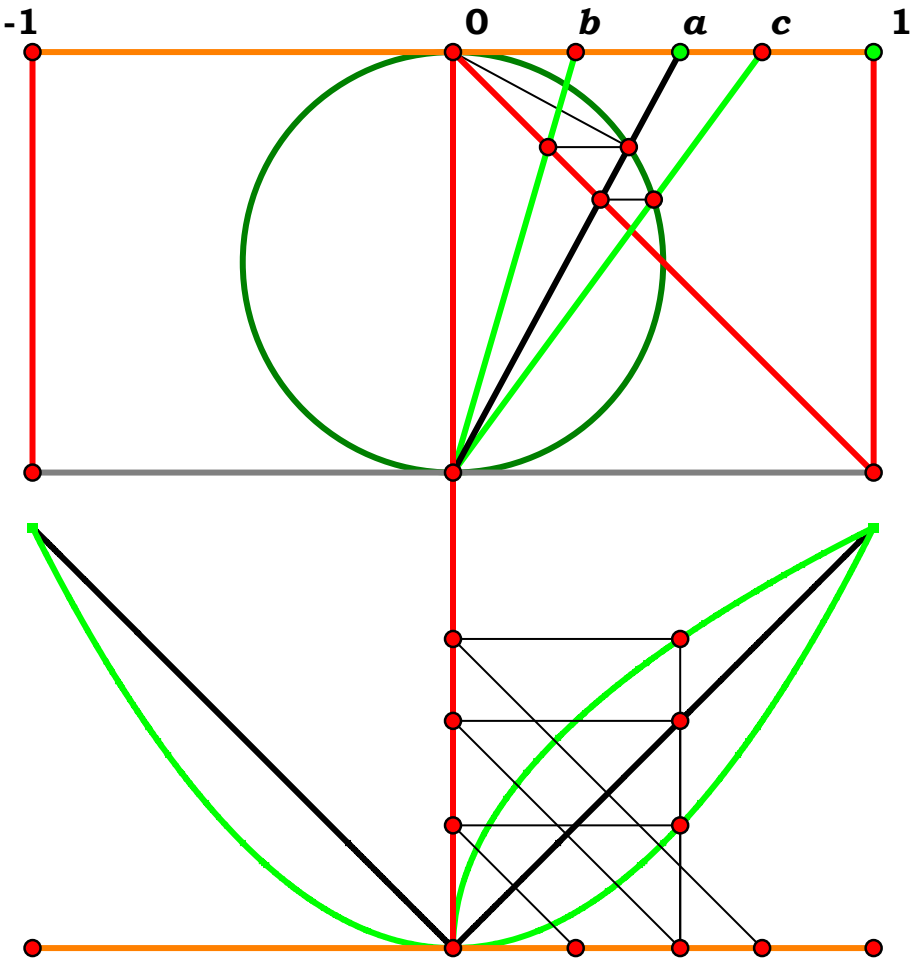
$a = -0.48478$

$b = -0.11393$

$c = -0.78557$

$a^3 - b = 0.00000$

$a^{\frac{1}{3}} - c = 0.00000$




# Power E

$a = 0.54021$

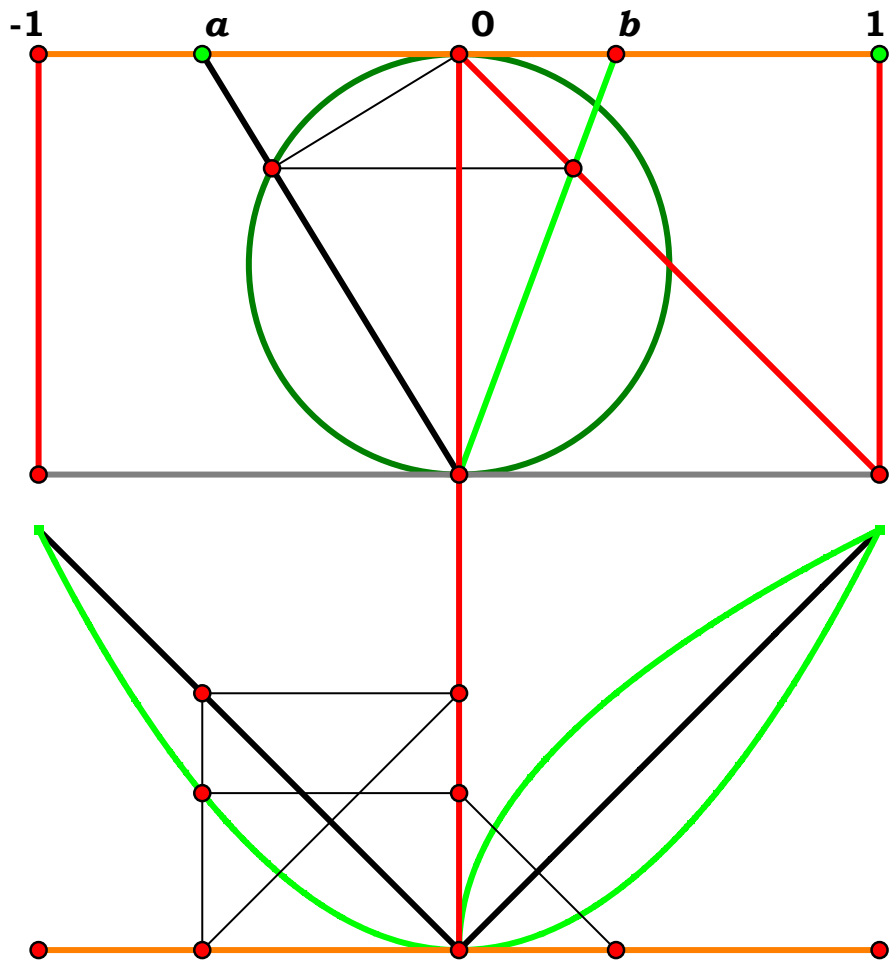
$b = 0.29182$

$c = 0.73499$

$a - c^2 = 0.00000$

$\sqrt{a} - c = 0.00000$

$a^2 - b = 0.00000$

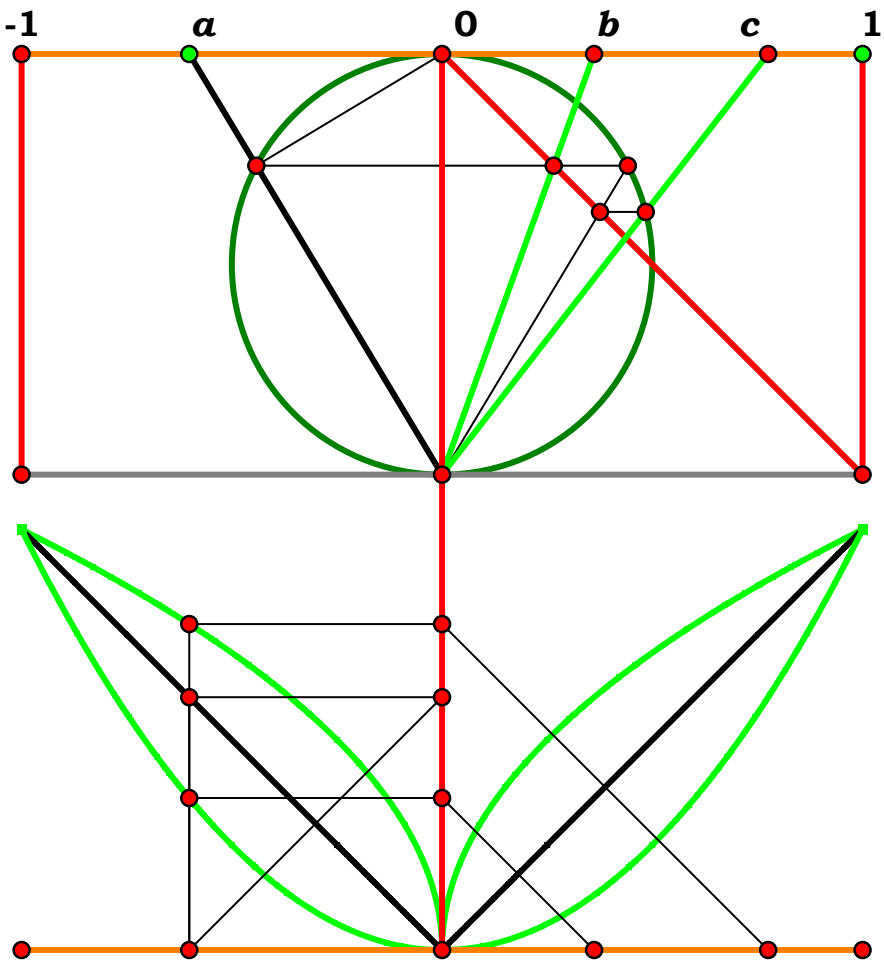



# Power E

$a$ = –0.61084

$b$ = 0.37312

$a^2 - b$ = 0.00000




# Power E mod

$a = -0.60132$

$b = 0.36159$

$c = 0.77545$

$a^2 - b = 0.00000$

$a - i \cdot c^2 = 0.00000$

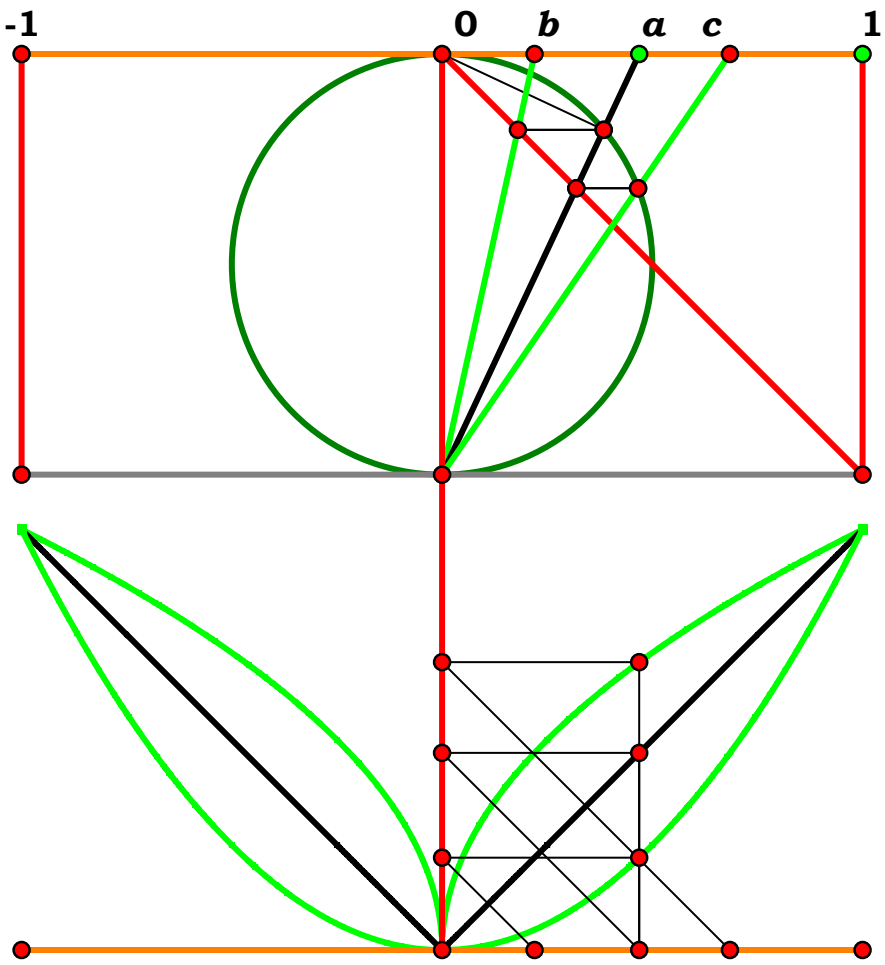
$\sqrt{a^2}^{\frac{1}{2}} - c = 0.00000$

$$\frac{1 + \frac{a}{c^2}}{2} = 0.00000$$

$$\frac{a}{c^2} = -1.00000$$

$i = -1.00000$

# Power E mod




$a = 0.46886$

$b = 0.21983$

$c = 0.68473$

$a^2 - b = 0.00000$

$a - i \cdot c^2 = 0.00000$

$\sqrt{a^2}^{\frac{1}{2}} - c = 0.00000$

$$\frac{1 + \frac{a}{c^2}}{2} = 1.00000$$

$$\frac{a}{c^2} = 1.00000$$

$i = 1.00000$

$Unit = 1.00000$

$x = 0.00000$

$y = 1.00000$

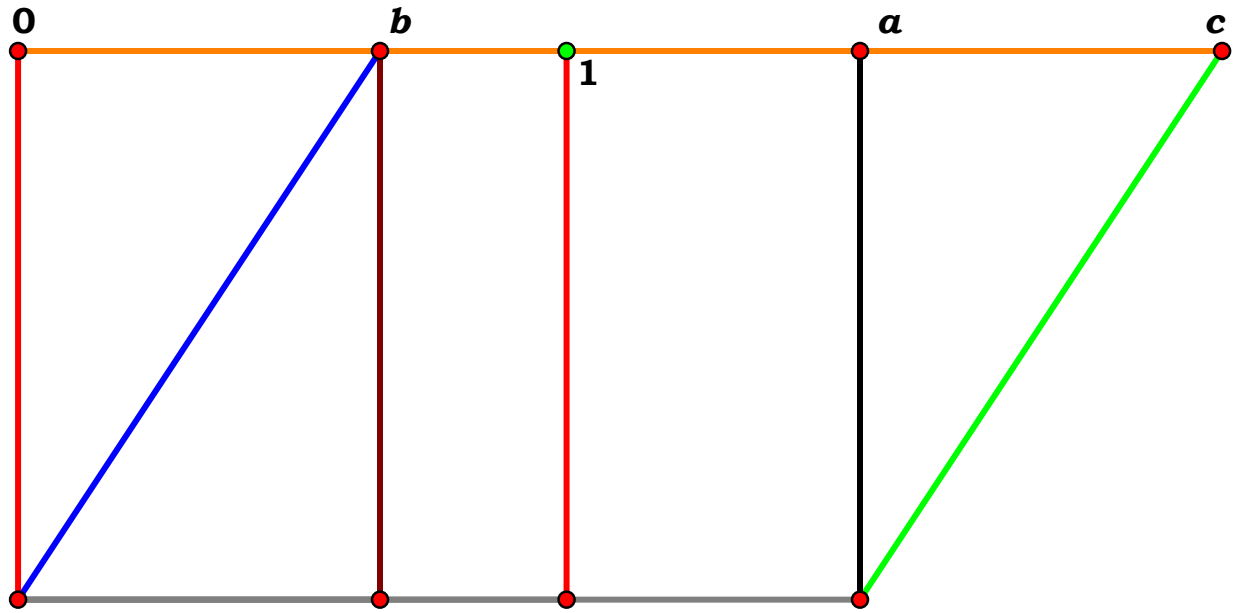
$a = 1.53513$

$b = 0.66000$

$c = 2.19512$

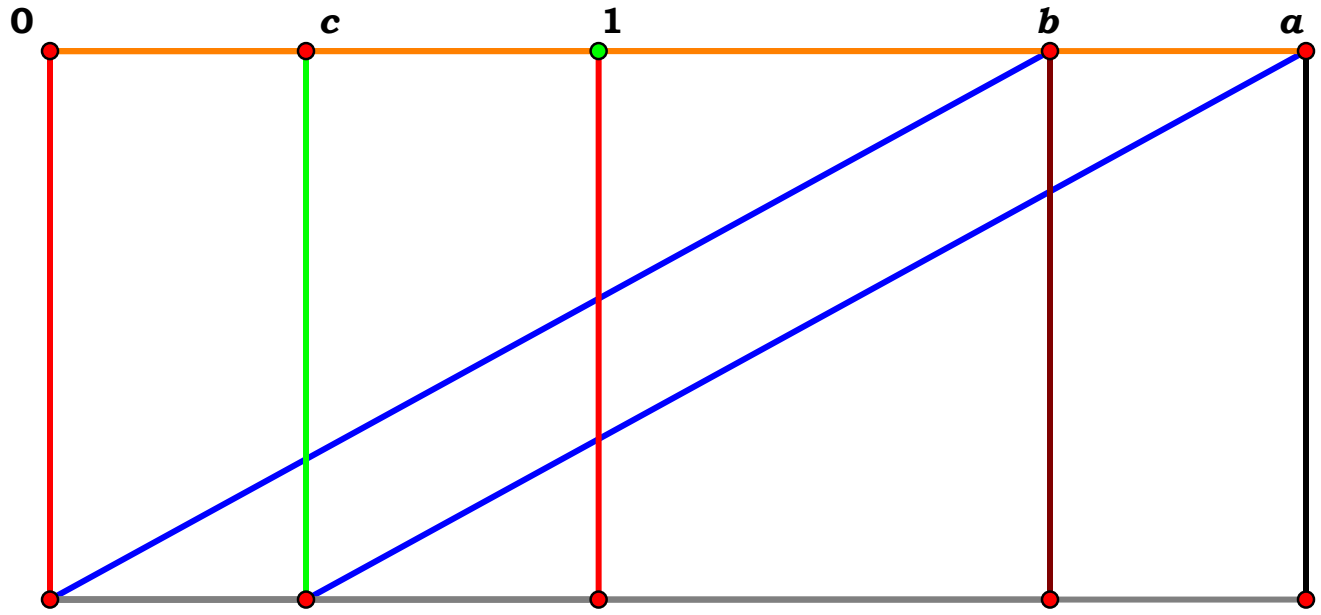
$a + b - c = 0.00000$

# Addition



$Unit$ = 1.00000
$x$ = 0.00000
$y$ = 1.00000
$a$ = 2.28993
$b$ = 1.82319
$c$ = 0.46674
$c - (a - b)$ = 0.00000

# Subtraction



$Unit = 1.00000$

$x = 0.00000$

$y = 1.00000$

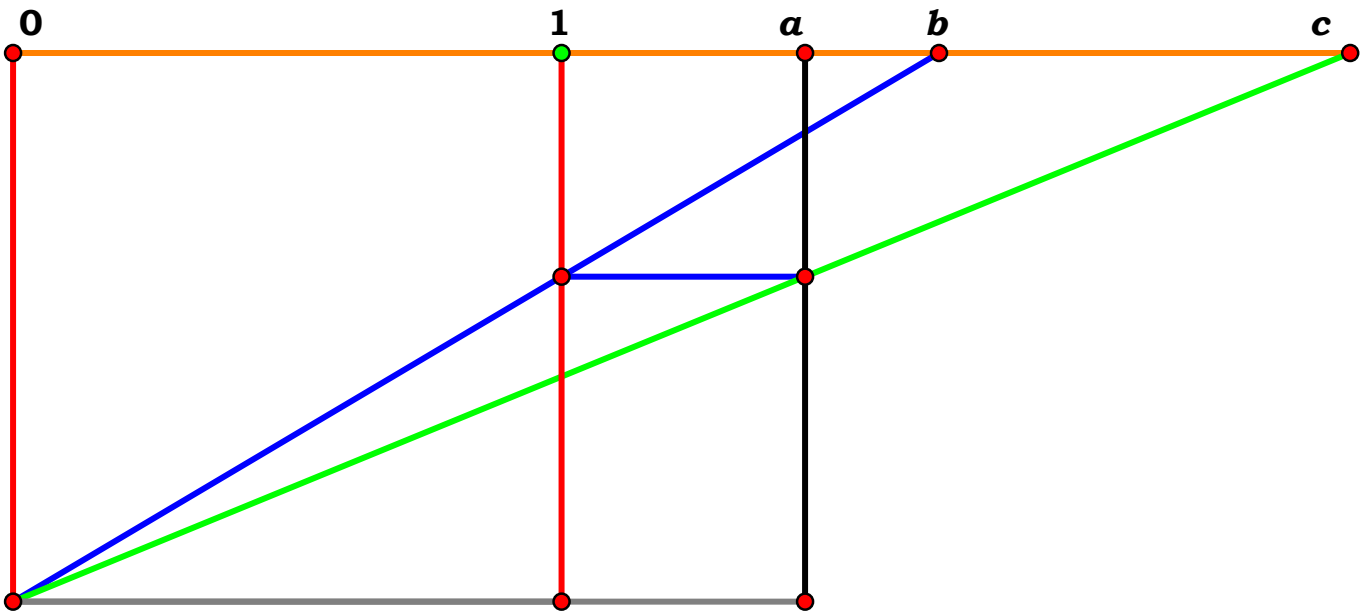
$a = 1.44397$

$b = 1.68828$

$c = 2.43782$

$a \cdot b - c = 0.00000$

# Multiplication



$Unit = 1.00000$

$x = 0.00000$

$y = 1.00000$

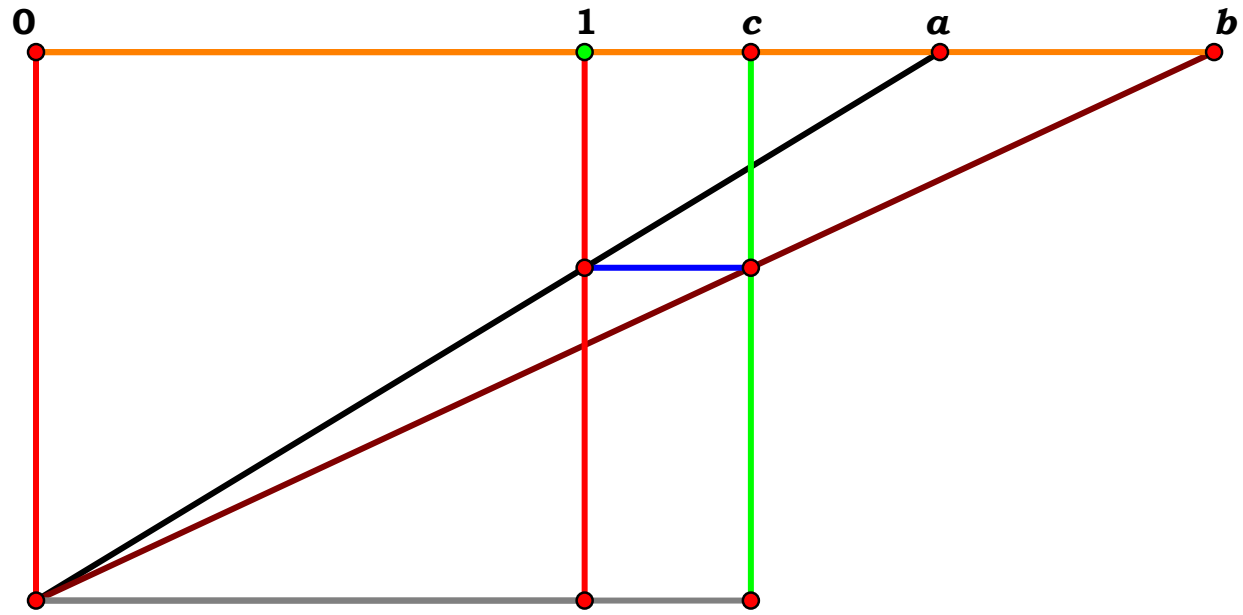
$a = 1.64817$

$b = 2.14772$

$c = 1.30310$

$c - \frac{b}{a} = 0.00000$

# Division



$Unit = 1.00000$

$x = 0.00000$

$y = 1.00000$

$a = 1.19457$

$b = 1.94251$

$c = 0.73969$

$\frac{a + b}{a \cdot b} = 1.35192$

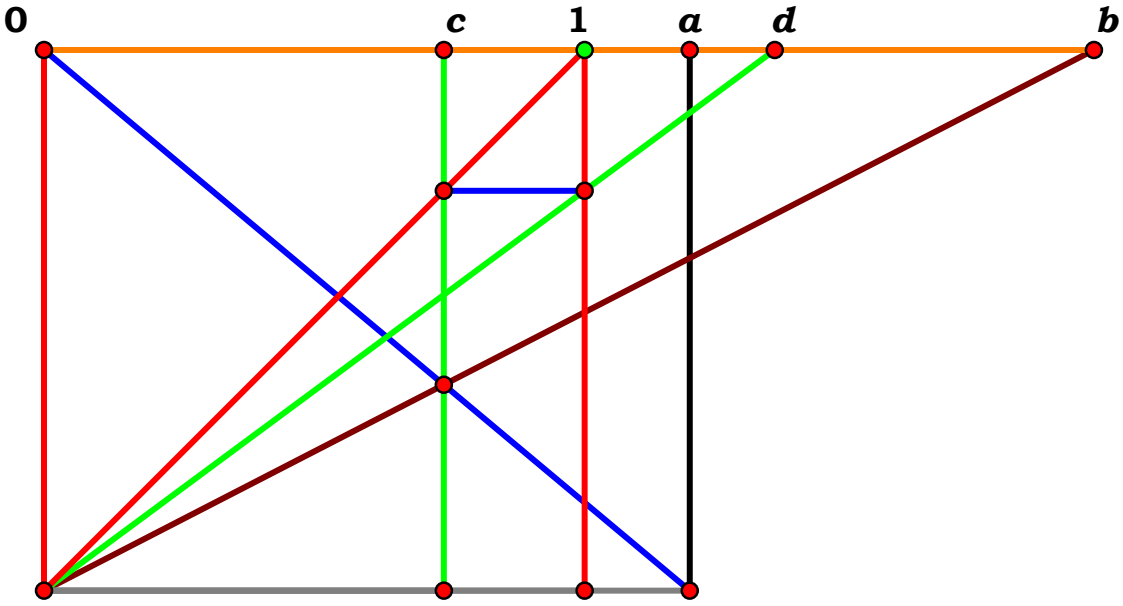
# What is the ratio of addition to multiplication?

$d = 1.35192$

$\frac{a + b}{a \cdot b} - d = 0.00000$

$\frac{a \cdot b}{a + b} = 0.73969$

$\frac{a \cdot b}{a + b} - c = 0.00000$



$Unit = 1.00000$

$x = 0.00000$

$y = 1.00000$

$a = 1.18508$

$b = 2.47590$

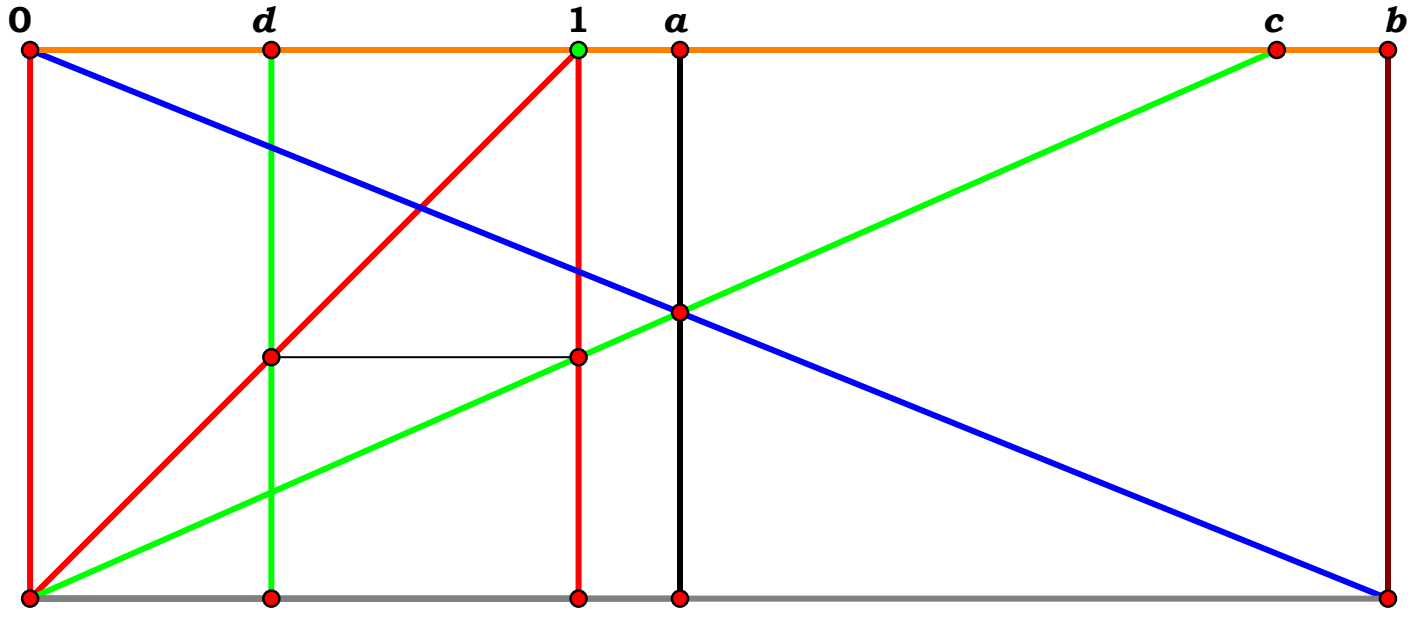
$c = 2.27307$

$d = 0.43993$

$$c - \frac{a \cdot b}{b - a} = 0.00000$$

$$\frac{b - a}{a \cdot b} - d = 0.00000$$

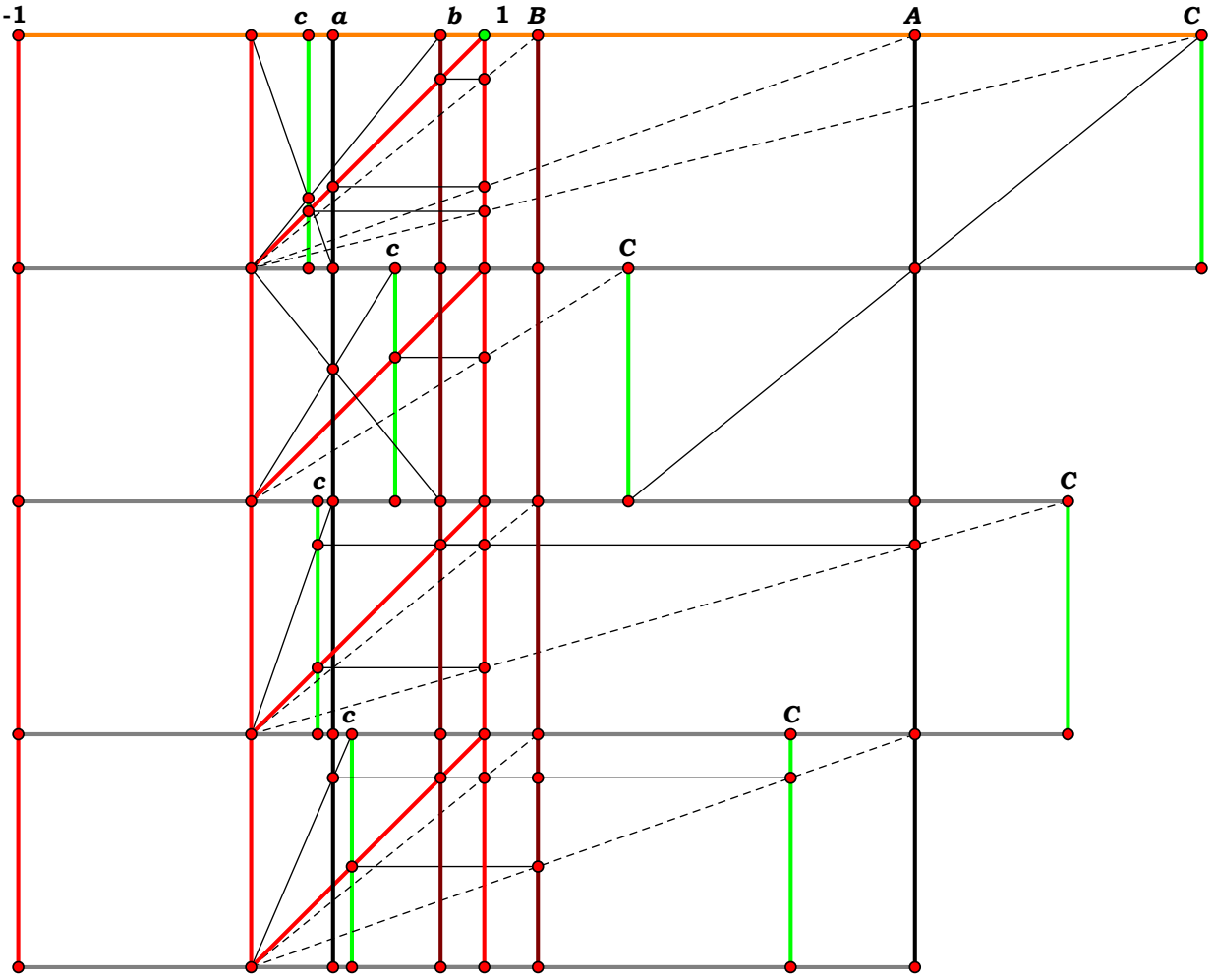
# What is the ratio of subtraction to multiplication?



*Unit* = 1.00000
0 = 0.00000
1 = 1.00000

*a* = 0.35097
*b* = 0.81275
*A* = 2.84925
*B* = 1.23039

# Law of Identity 1




**Addition**

*c* = 0.24512
*C* = 4.07964
$C - (A + B) = 0.00000$
$c - \frac{a \cdot b}{b + a} = 0.00000$

**Subtraction**

*c* = 0.61772
*c* = 1.61885
$c - (A - B) = 0.00000$
$c - \frac{a \cdot b}{b - a} = 0.00000$

**Multiplication**

*c* = 0.28525
*C* = 3.50569
$C - A \cdot B = 0.00000$
$c - a \cdot b = 0.00000$

**Division**

*c* = 0.43183
*C* = 2.31572
$C - \frac{A}{B} = 0.00000$
$c - \frac{a}{b} = 0.00000$

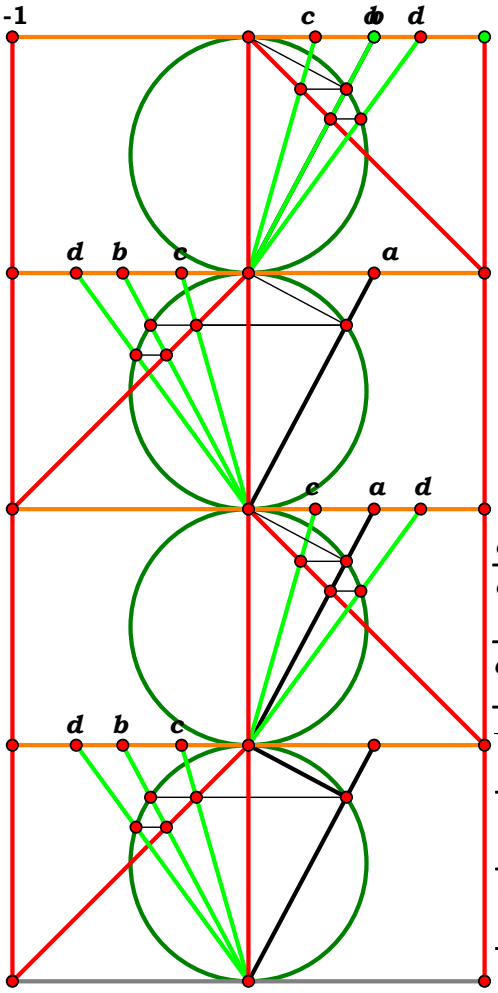
# Law of Identity 2

*Unit* = 1.00000
0 = 0.00000
1 = 1.00000
*a* = 0.53239
*b* = 0.53239
*c* = 0.28344
*d* = 0.72965

*b* = –0.53239
*c* = –0.28344
*d* = –0.72965

*c* = 0.28344
*d* = 0.72965

*b* = –0.53239
*c* = –0.28344
*d* = –0.72965




$\frac{a}{b} = 1.00000$ $\frac{a-b}{2\cdot a} = 0.00000$ $\frac{a+b}{2\cdot a} = 1.00000$

$\frac{a}{d^2} = 1.00000$ $\frac{a-d^2}{2\cdot a} = 0.00000$ $\frac{a+d^2}{2\cdot a} = 1.00000$

$\frac{a}{\sqrt{c}} = 1.00000$ $\frac{a-\sqrt{c}}{2\cdot a} = 0.00000$ $\frac{a+\sqrt{c}}{2\cdot a} = 1.00000$

$\frac{a}{b} = -1.00000$ $\frac{a-b}{2\cdot a} = 1.00000$ $\frac{a+b}{2\cdot a} = 0.00000$

$\frac{a}{d^2} = 1.00000$ $\frac{a-d^2}{2\cdot a} = 0.00000$ $\frac{a+d^2}{2\cdot a} = 1.00000$

$\frac{a^2}{c} = -1.00000$ $\frac{a^2-c}{2\cdot a^2} = 1.00000$ $\frac{a^2+c}{2\cdot a} = 0.00000$

$\frac{a}{a} = 1.00000$

$\frac{a}{d^2} = 1.00000$ $\frac{a-d^2}{2\cdot a} = 0.00000$ $\frac{a+d^2}{2\cdot a} = 1.00000$

$\frac{a}{\sqrt{c}} = 1.00000$ $\frac{a-\sqrt{c}}{2\cdot a} = 0.00000$ $\frac{a+\sqrt{c}}{2\cdot a} = 1.00000$

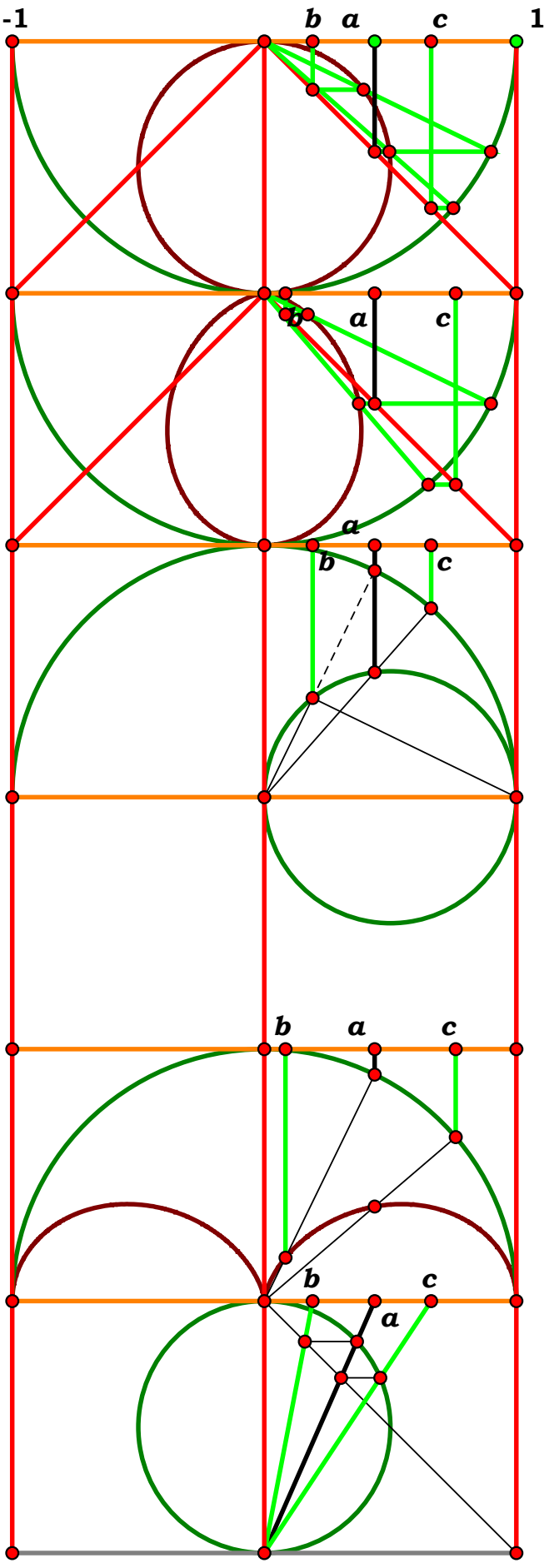
$\frac{a}{b} = -1.00000$ $\frac{a-b}{2\cdot a} = 1.00000$ $\frac{a+b}{2\cdot a} = 0.00000$

$\frac{a}{d^2} = 1.00000$ $\frac{a-d^2}{2\cdot a} = 0.00000$ $\frac{a+d^2}{2\cdot a} = 1.00000$

$\frac{a^2}{c} = -1.00000$ $\frac{a^2-c}{2\cdot a^2} = 1.00000$ $\frac{a^2+c}{2\cdot a^2} = 0.00000$

# Law of Identity 3

*Unit* = 1.00000
0 = 0.00000
1 = 1.00000




$a$ = 0.43779
$b$ = 0.19166
$c$ = 0.66166

$a - \sqrt{b} = 0.00000$
$a - c^2 = 0.00000$

$b$ = 0.08391
$c$ = 0.75932

$a - b^{\frac{1}{3}} = 0.00000$
$a - c^3 = 0.00000$

$b$ = 0.19166
$c$ = 0.66166

$a - c^2 = 0.00000$
$a^2 - b = 0.00000$

$b$ = 0.08391
$c$ = 0.75932

$a - b^{\frac{1}{3}} = 0.00000$
$a - c^3 = 0.00000$

$a$ = 0.43779
$b$ = 0.19166
$c$ = 0.66166

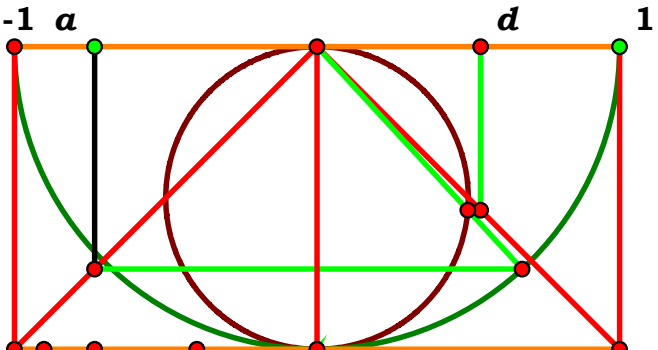
$a^2 - b = 0.00000$
$a - \sqrt{b} = 0.00000$
$a - c^2 = 0.00000$

# Law of Identity 3

*Unit* = 1.00000
0 = 0.00000
1 = 1.00000

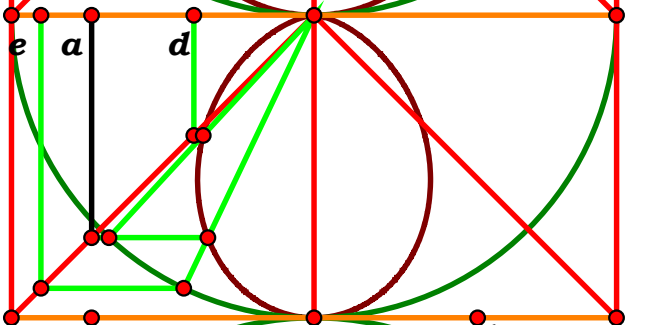
$a$ = –0.73518

$d$ = 0.54049



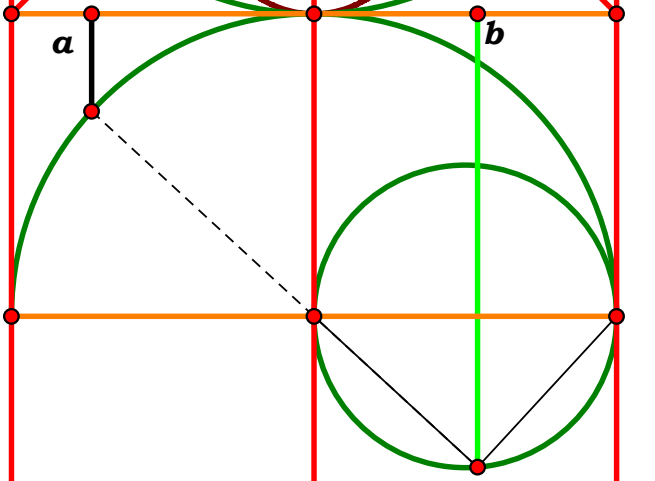

$a^2 - d = 0.00000$

$d$ = –0.39736
$e$ = –0.90254



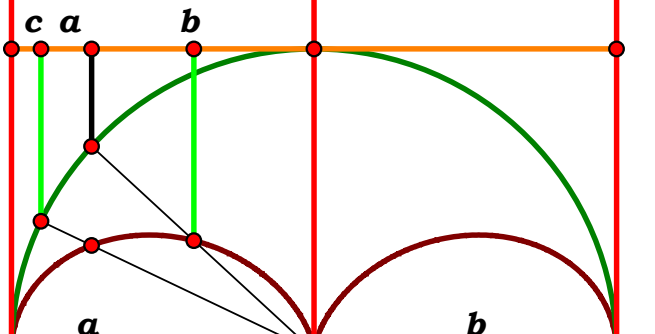

$a - d^{\frac{1}{3}} = 0.00000$
$a - e^3 = 0.00000$

$b$ = 0.54049



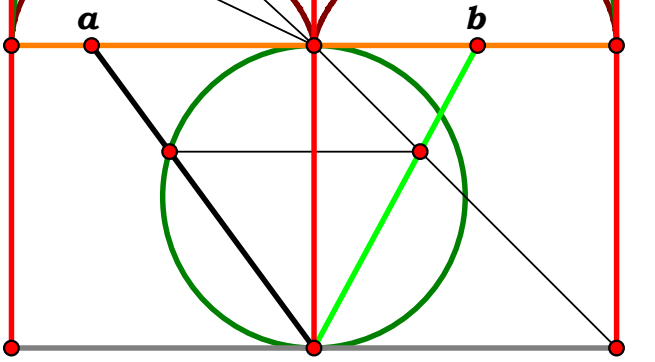

$a^2 - b = 0.00000$

$b$ = –0.39736
$c$ = –0.90254




$a - b^{\frac{1}{3}} = 0.00000$
$a - c^3 = 0.00000$

$a$ = –0.73518
$b$ = 0.54049




$a^2 - b = 0.00000$
$a - \sqrt{b} = -1.47036$